

Reviews

Woodwork

Barry Hepton and Roger Way,
London; Longman, 1981 £6.95

The authors in their preface draw attention to the many problems of craft teachers today which are peculiar to their subject, and further heightened by the advent and increase of mixed ability teaching, Design and Technology examinations and enlarged syllabi, which collectively force the craft teacher into situations where 'a vast range of skills' have to be 'crammed'; they also mention that the cards are intended as 'a valuable tool' for any craft teacher. The cards are also intended to 'stimulate lessons without imposing a set course', and to 'complement any teaching method' providing 'an open and easily accessible source of techniques for immediate practical use in the workshop'.

I think that all of us who teach in the situations that the authors describe would agree that there is indeed a definite need for systems of reference within departments that pupils could use to expand their horizons and reinforce teacher input. However, it is also important to remember that it is the teacher who must remain the focal point of the group and be the main controlling element in all activities, particularly in those where safety is a prime consideration.

A phrase that springs to mind easily from my reading of these cards is 'ask a friend' which appears a number of times in the text. I was not too happy about this and would have preferred to see teacher involvement, particularly where adjustments and usage of machinery are concerned. In one instance 'a friend' is involved in holding up the table of a drilling machine whilst an adjustment is carried out by the first person — not the most safety conscious method to be used here I would have thought — the pupil is further instructed to 'keep your foot firmly on the stop button or pedal when changing the drill', 'it reduces the chance of an accident' — I would feel here that switching off at the mains would reduce the chance of an accident even further. While on the question of safety, I really must refer to Card 21 — 'Fixed and Portable Electric Tools', where the pupil is instructed in the use of a bandsaw! — without going into further detail on this, I would not think that any safety conscious teacher would allow pupils to use bandsaws as advocated on this card — even though pupils are also instructed to keep their fingers well away from the blade!

I am not keen either on pupils using portable electric drills and jigsaws in mixed ability situations not to mention the circular saw for grooving on Card 48, unless these activities are heavily teacher controlled. Assuming that the authors do not intend use of these machines except under the strictest supervision or by the teacher himself (or herself), it is important that this is made more evident to pupils reading these cards and continually emphasised in any reference to machine usage throughout the text. Cards 11 and 12 on Designing and Planning,

Proportions and Ergonomics respectively, should either have been left out of this series of 48 cards or produced in more detail. On Card 11 pupils are informed that 'designing is the art of solving problems and making vague ideas real' and that 'sometimes designing can be easy but often it requires a lot of thought and planning' — the card then goes on to describe one way of designing furniture as follows: —

1. *Recording* 'Find a large sheet of paper to use as a record of designing and planning' — 'it should be attractive and easy to look at'.

2. *'Set Yourself a Clear Problem to Solve'*

Example: 'Design a piece of apparatus which will exercise someone's arm' — this I would not regard as a clear problem!

or Example 3 — 'design a table for the sitting room to stand in front of the settee'.

In the card on Bowl Turning too, I found the design element mentioned to be rather weak

— 'Study the wood carefully' — 'imagine what shape would look the best'

— 'Draw out ideas full size'

the design to suit the wood as opposed to vice versa?

As stated previously, I would be happier if designs were not mentioned in this series. The information proffered is minimal and likely to do more harm than good as far as design thinking is concerned.

There are other criticisms that I could make including some of grammatical error in the text but will refrain on this occasion from any further derogatory comment.

Instead on the plus side and apart from the main criticisms I have outlined, I found the cards to be both interestingly presented and informative, the information ranging from that on elementary timber technology on the one hand to joints, fixtures, use of tools and machines, instructions, use of composite boards and fixings, etc., to gluing, nailing and finishing. The cards are well illustrated and of good quality. With further editing, they would indeed be extremely useful and helpful to the hardpressed teacher.

Mal Evans

Lettering Techniques

John Lancaster
London: Batsford, 1981, £6.95.

The revival of interest in Lettering, Calligraphy and the Typographical Arts inspired by William Morris and subsequently pioneered by Edward Johnston around the turn of the century has continued to grow, if somewhat spasmodically, right up to the present time. Throughout this period the majority of books on the subject that have been published have tended to emphasize the very necessary technical skills and/or the philosophical nature of lettering, together with the gradual evolution of

the forms in use today. Such books, are perhaps, mainly of interest to the historians, professional practitioners and enthusiastic amateurs. Therefore, it is quite refreshing to find that John Lancaster's recently published book entitled 'Lettering Techniques' is a 'down-to-earth' attempt to reach a wider reading public, and in particular, to give sound advice and encouragement to beginners.

It was as a young teacher that John Lancaster realised that the lengthy, skill orientated 'obstacle' course that he and his contemporaries completed was only suitable for dedicated students and, as such, was totally inappropriate for the vast majority of young pupils. For several years he has conducted controlled experiments with both children and older students in an attempt to find alternative approaches that would not 'kill off' the interest of all but a few during the initial stages. The outcome of his experiments is lucidly set down in this book and for this reason its real potential appears to lie within the educational system as a stimulus for classroom activities with children and also as part of the preparation for those about to become art teachers.

The author believes that a study of lettering and calligraphy can, and should be fun; that the symbols used to express language are exciting, creative forms to manipulate, and that with tutored practice almost anyone can gain tremendous satisfaction from this form of self-expression.

Readers are introduced to the subject by means of a brief historical overview illustrated with charts, diagrams and carefully selected photographs. The only blemish in the book occurs in this chapter, the captions to 'Square' and 'Rustic' capitals have somehow become reversed.

However, 'involvement' is clearly advocated before 'theory' and the beginner is encouraged to experiment with forms as diverse as modern mass-produced or 'instant' lettering, the typewriter keyboard and graffiti as well as the more traditional forms developed over the past two thousand years or so, in Europe, the Middle Eastern States and the Orient, by means of the brush, pen or chisel.

Guidance is given in the appropriate use of tools and materials together with a range of possible starting points, suggestions for practice and possible design briefs.

Experimental image-making, pattern and the decorative use of letter forms are dealt with and this, of course, is not entirely without precedent for many years have passed since Marion Richardson exploited pattern-making as a preliminary stage in the development of legible handwriting with young children. It has often been the case that one particular art form has influenced and perhaps dominated all other art forms for a while and it is possible to draw parallels between recent trends in 'Fine Art' and the development of so-called 'Expressive Calligraphy' during the past decade. Certainly a more spontaneous approach by some of the country's leading calligraphers has produced some very exciting manuscripts.

While Freedom of Expression (as advocated by the author) should be encouraged as a preliminary stage to a more serious study of lettering and calligraphy, one should perhaps add a cautious note to the effect that without complete mastery over tools and materials, there are implicit dangers when a manual discipline such as this, moves too far away from its roots.

This admirably readable text is well illustrated with both line drawings, diagrams and photographs by the author and specially features recent work by two contemporary craftsmen. It suffers only – in this cost conscious age – from a complete lack of coloured plates, colour being a very important aspect of this kind of work.

E.J. Milton Smith.

Oriental Designs in Needlepoint

Eva Brent

London: Routledge and Kegan Paul, 1981, £6.95.

The main object of this book is to present twenty designs for canvas work adapted from the whole range of Chinese and Japanese art, painting, weaving, embroidery, calligraphy and ceramics. They are extremely pretty and colourful, and range in subject from landscape, birds, trees and mythological animals to human figures. Each design has a practical or decorative purpose, such as a wall-hanging, cushion, stool-top etc, and is supported by a brief introduction about the origin of the design, a suggested colour chart for wools, a colour photograph of the finished work, and two graphs for working from. With the exception of the Japanese figures they are also of considerable intricacy and difficulty.

The major drawback of the work is the scale of the graphs, the largest being 10 threads to 1.5 centimeters. Though beautifully printed this is distinctly eye-jerking. The author suggests that the designs should be enlarged by photocopying and gives instructions for transferring the enlargement to canvas for those who dislike working from graphs. She advocates caution, and not surprisingly. Such intricate designs would require a professional to do this successfully. It is a pity that the publishers, who give a lavish lay-out to the book, do not allow space for adequate graphs to make it a practical proposition.

Being American, many terms used in the book are not current in Europe. Continental and basket weave stitches (used exclusively) turn out to be Tent stitch. Working instructions are clear. A serious omission is the lack of information about blocking, especially important as the author does not encourage working on a frame. It would have been better to have included more technical advice instead of such comments as 'if you can learn to sit in the lotus position while stitching not only will your body become strong, but your soul will expand along with your art'.

If you are fascinated by oriental design this book may be for you. But if you are wanting good instruction in canvas work, there are better investments to be had.

Dorothea Kay

Design with Disabled People

Community Service Volunteers
London, 1981, £4.50

Design with Disabled People is a teaching pack which, as its clearly stated aims underline; is intended to give pupils a greater knowledge of disabilities, a greater awareness of the problems of disabled people, and an opportunity to recognize their needs and to fulfil them through the designing and making of aids. The materials were developed as a result of The School Concern Project, a joint venture of Salford Education Authority, Salford Social Services Department and Community Services Volunteers. The Project was based on the assumptions that this school is a community resource, that young people should contribute to the community as part of their education and that the design process is an essential component of craft education. The pack, then, is an attempt to achieve the dual aims of heightening social awareness and developing sensitivity to the problem of design through a very practical application of the design process to the problems of handicapped people.

The pack follows a logical sequence — Where To Start; Class Preparation; Case Studies; Resources. There is also a set of slides showing the development of the project and five large wall posters: *What is Arthritis?*; *What is Multiple Sclerosis?*; *What is Spina Bifida?*; *What is a Stroke?*; *The Design Process*. The four posters dealing with handicaps are naturalistic, simple and clearly illustrated. Their impact is effective and essential information is communicated in a manner which most young people will readily grasp. The poster showing the design process is less clear, uses cartoons which confuse rather than clarify the message and is generally not a very good example of the process it seeks to illustrate. The slide show, suitably fleshed out by the comments, illustrative anecdotes etc, of a competent class teacher would also help to generate interest.

The learning strategy adopted in the section on classroom preparation is a sound mixture of information and involvement. There is plenty of information for both the class teacher and the pupils about various forms of handicap and a set of worksheets providing explanatory simulations which encourage the pupils to put themselves in the position of the handicapped person, thereby encouraging learning through sympathetic understanding. The design process is both presented and reinforced by a *Designing and Making Workbook* which requires the pupil to keep a record of all his or her thoughts, ideas and observations as the

process is followed through from problem to realisation.

The case studies serve the dual purpose of stimulating interest and providing exemplars of how other young people have achieved successful solutions to similar problems. They are partly inspirational and partly resource material. There is also a great deal more of the latter in the form of booklists, film and slide lists and lists of organisations and agencies which might be approached for more information, help and so on. The resource material is quite the best part of the kit since it provides an abundance of just the sort of helpful background material that the overworked and harrassed classroom teacher has neither the time nor the energy to compile. This applies to both the classroom materials — the posters, the slides etc, — and the information 'software' — the lists, addresses etc.

As for the rest, although this package faithfully followed through might achieve its overall objectives, the tone is too impirative, the stance too didactic to suit everyone's taste. The imaginative CDT teacher is likely to have an individual approach to introducing pupils to the design process and possibly, indeed to the problems of handicapped people. Nevertheless it contains such a wealth of information and readily accessible reference material that given a serious desire to develop this brand of socially orientated design and craft activity there is no doubt that it would be worth investing in as an important resource for both teacher and pupil.

G.D.C. Doherty

Sculpting with Cement

Lynn Olson
Indiana: Steelstone Press, 1981, \$14.95

At a time when concrete appears to be increasingly dominating the man-made environment it could be considered opportune for a book to be published which considers cement as a fine art material.

The last fifty years has shown that any materials can be used for artistic purposes and so no arguments are necessary to support the use of cement as a sculptural medium. Furthermore, cement is not overly expensive and is readily obtainable.

The book is a 'how-to-do-it' book on the technicalities of using cement and gives very useful information on a variety of ways cement can be mixed, aggregated, modelled, carved, cast and so on.

Unfortunately, the book is not easy to read. This is partly because the author uses the making of actual pieces of 'sculpture' as a way of describing the technical processes involved. It could easily be read as a 'how-to-do-it' book for a small number of sculptural projects. Even if the reader can get over this limitation, there are problems in writing style. Each section launches into instructions for gathering materials, measuring out, cutting, bending and so on

with no indication as to what is being made or why it is being made in that way. There is always the presumption that the reader wants to make the same thing as the writer. Guidance given is sometimes inconsistent.

The book fluctuates between simple almost naive instruction and patches of technical information which could only be of interest to a physicist. The detail of the stress and strain factors of tensile steel, for instance, would hardly seem necessary in making the armature of even a six foot figure. There is a lengthy homily on transmitted and reflected light which seems quite irrelevant when all it leads up to is the setting of stained glass pieces in cement frames.

In all, working with cement is a lengthy messy business but there is no doubt that it does offer some unique opportunities as a sculptural medium. The major problems for its use in schools would seem to be the number of stages to be undertaken in the making of almost anything and the amount of space it would inevitably need. The danger would be that the amount of attention to be given to the process could detract from the aesthetic quality of objects being made and this was certainly exemplified in this book.

Brian Allison

Rodney Peppé's Moving Toys

Rodney Peppé
London: Evans Bros, 1980, £6.95

Many colourful book covers tend to mislead the buyer by not fulfilling their promise through the inside pages. Not so this attractive book of Moving Toys by Rodney Peppé.

Very clear photographs and illustrations, with colour plates of the toys and individual figures painted in a traditional style give the book a first class presentation.

The book is about making toys, toys that move, and to use the words of the author 'is aimed at those who are fairly skilled, but perhaps lack the design ability to put their ideas into practice'.

Rodney Peppé is a free lance graphic designer who has recently started designing and making wooden toys, some of which are modelled on his own designs and others based on Victorian originals. He presents twenty-two ideas for toy making, all with clear instructions on cutting out and assembling the various parts.

Fourteen of the toys are mechanically motivated, some by balance, some through pulleys and strings. Further examples have lever principles and one has a sand motor as a power source. The remaining group of eight toys are either cut-outs which interlock as a form of puzzle, or just decorative shapes cut from plywood or softwood, ranging in thickness from 1.5 mm Aero ply to 10 mm softwood and 12 mm plywood. The author suggest that the

shapes could be made with the aid of a fret-saw machine (jig-saw) or with a hand fretsaw.

I believe that this publication will be popular with those who wish to construct just for fun, which is what I think Rodney Peppé intended. However this wholly prescriptive approach of closed creativity leaves little to the imagination and ingenuity of the reader and would therefore need to be used selectively in the classroom/workshop. Two sections of the book are devoted to the theoretical aspects of craftwork in general, one dealing with Tools and Techniques and the other with Materials. I would suggest that some of this information is superfluous and that the inclusion of information on balances, linkages, levers and the simple principles involved in planning the toys, would allow the book to have been used in a more imaginative way.

However I think there is plenty of material here which can be used to stimulate pupils into experimenting with mechanical projects, and that the publication will become a well thumbed edition in the School Library.

J.W. Thompson

We Can Do It Now!

Barry Everley
Manchester: Equal Opportunities Commission, 1981 unpriced.

This 40-page pamphlet appears as a brief report on 'some good practices in science, technology and crafts in schools' within the age range of 4-16. 'Good practices' are defined, in this context, as those that make no distinction between the treatment of boys and girls; whether the practices described embody good technology or good education does not seem to count. One is also struck by the statement on page 1 that 'The problem (of equality) is a particularly acute one for girls', making immediately a case for unequal attention.

The report uses a sample of only 12 schools (is 'good practice' that scarce?) from infants' to secondary. For the infants there are examples of good practice in fundamental science education through experiences arousing curiosity and directed into observation and creative interpretation — disciplines not restricted to science education, one hopes, but central to education in any cultural society.

One of the primary schools took a severely restricted view of technology, confining pupils' experiences, apparently, to the construction of mechanical gadgets; one detects a sense of amazement in the teachers' reports that the girls seemed to be good at it when placed in an equal-opportunity situation.

One is left, after perusing the 40 pages, with an uneasy feeling that the publishers are in the business of apologetic self-justification, having discovered the well-established principle that ability is unrelated to

gender. Astonishment is expressed that girls can succeed in technical and scientific studies, and that women can succeed in teaching them, despite the multitudes of women employed in the management and operation of manufacturing industry since the 18th Century.

Perhaps I have missed a companion publication urging that more boys be attracted to languages and cultural education; vital to our survival as a post-industrial nation.

Michael Sayer

Electricity

P.H.Alden

Cambridge: University Press, 1981 £1.50

Painting and Decorating

P.H. Alden

Cambridge: University Press, 1981 £1.50

These two 32 page books are extremely informative in their text. Concisely written and well illustrated they are suitable for a wide application in schools.

With the book 'ELECTRICITY' the emphasis is on safety. It begins with an introduction to safety standards and follows on quite naturally with how to wire a plug and change a fuse. Progressively the book continues with a brief run-down on various home appliances which are designed for safe and efficient operation and concludes with a reprint for a typical 'WHICH' report showing how effective comparisons may be made with regard to individual choice and eventual purchase.

The book 'PAINTING AND DECORATING' is more instructional in its purpose and is a concise work on house painting and decorating technique and operation. There is no neglect of matters to do with safety and in every stage of the decorating process adequate reference is made to good practice in organisation and planning. Indeed many families who have experienced the frustration and shambles of prolonged and disorganised home decorating would be less inclined to devalue their leader's efforts and more inclined to assist if such guidelines were followed. The economics of DIY decorating is mentioned and this includes the importance of having the right equipment for the job. This book is about technique and does not attempt to deal with colour schemes and design.

In conclusion, it is a welcome fact that these books attempt to simplify and therefore attempt nothing ambitious. They are direct and full of well presented information: because of this they will be well suited to a wide age and ability range and equally suitable for CDT or Home Economics.

Francis Zanker

Know the Motor Car

Malcolm Neal

Cambridge: University Press, 1981 £7.95

This is a basic course on the systems of the motor car for fourteen-to sixteen-year olds, suitable for CSE work and for non-examination work. The course gives pupils an insight into engineering principles and methods and provides the teacher with an opportunity to use motor vehicles for teaching related scientific principles.

The series of booklets consists of . . .

Know the Motor Car (information for teachers)

1. Brakes
2. Cooling
3. Engine
4. Frame and suspension
5. Fuel
6. General electrics
7. Ignition
8. Lubrication
9. Steering
10. Transmission

The text in the booklets is concisely written and the diagrams are very clear. No attempt is made to go beyond the very basic principles and in the hands of a teacher who has some knowledge of the car this series should prove a valuable aid to teaching. The series seems at first hand expensive, but if compared with other works on the subject it is good value.

Francis Zanker

The Seeing Eye

Gordon Bradshaw

Portsmouth: Focal Point Audiovisual, 1981

Basic Design

Derek Riley

Portsmouth: Focal Point Audiovisual, 1981.

The Seeing Eye: set of four filmstrips and teachers' notes. Although dating from 1970, these films are concerned with unchanging fundamentals and disciplined observation of objects that are never outdated.

There are four filmstrips in the set, each of 36 frames in colour; their educational aim is, quite simply, training in observation through a sequence of object-lessons, that well-tryed (but not yet superseded) educational technique.

Filmstrip 1, *Elements of Design*, takes the themes Lines, Shapes, Textures, and Colours, and offers visual material for teachers to make students aware of their own instinctive observation processes — eye movements and how a scene or picture determines them — and draws conscious attention to commonplace and seemingly insignificant object that will bear, but seldom get, objective study.

Design in Nature, number 2, reminds us of landscape qualities (although landscape is seldom wholly natural) and the dynamic patterns in streams and clouds. Students are also brought to critical observation and interpretation of evolution in plants and animals, in relation to efficient survival in varying environments.

No 3, *Man-made Design*, provides the visual stimulus for objective study of shapes and patterns in factories and refineries, machinery and structures, and in the quasi-natural forms of ships and musical instruments: tools that have evolved to optimum shapes independently of conscious design over very long periods.

Architectural design, good and bad, are shown (without any attempt to tell us which is which) and the contrasts between monumental and intimate buildings. Emotional identification with a building happens only when the structure itself, or at least its tangible details, are on a human scale; and it is instructive to note how this filmstrip of 1970, with its accompanying teachers' notes on the New Jerusalem of 1960s social planning, side-steps the predictable alienation of humans constrained to monolithic concrete dwellings little different in their inhumanity from the cattle-pens of the next frame. The abstract art resulting from atmospheric action on the scrap metal *Accidental Design* of filmstrip 4 might be developed in relation to human action on some of the aggressive man-made structures in No 3.

Basic Design: set of 10 filmstrips and teachers' notes.

Dated 1968, this set of colour filmstrips expands into more than 300 frames the material in Filmstrip I of *The Seeing Eye* series – or, more probably, *The Seeing Eye* concentrates the vast and diffuse accumulation of visual material in *Basic Design*.

This set is unequivocally for the teacher of visual art, and provides his students with a range of stimulus material from painting and sculpture, architecture, nature, and the inescapable scrap metal, for creative expression in a variety of media. Again the teachers' notes are planned to draw the student towards critical and analytical observation of mostly abstract forms, both natural and manufactured.

The teacher of art or design could well find in these two sets much of the fundamental ideas he needs to stimulate innovation and its critical examination.

Michael Sayer

Projects & Designs in Woodwork

Ian Punter

London: Batsford, 1981, £5.50.

The stated aim of this book is 'to present a programme of practical work leading to the standards required by the CSE and GCE craft, design and technology syllabuses which have woodwork as the main study'.

The bulk of the book is taken up with a number of suggested projects most of which focus on a particular woodworking technique. The remainder forms an excellently illustrated guide to the techniques themselves; eg, 'Cutting a Housing Joint', 'Cutting a Cross-Halving Joint'.

The approach throughout can be described as a very tightly structured one. There is a stated brief for each project – eg, 'To design and make a tray with compartments suitable to serve either as an office or sewing tray' – but the statement of aims in almost every case and the illustrations provided make it clear that manufacturing techniques are usually central to the exercise. In the case of the tray, for instance, the project aims to 'introduce the ideas of space organisation and layout, as well as incorporate the butt joint, the housing joint and the cross-halving joint'. In the case of the Towel Rail, the project 'instructs in the marking and cutting of the lapped dovetail joint and there is also the opportunity to learn simple turning procedures on the wood-turning lathe'.

Within the guidelines set, there is nevertheless room for decision making, but it might be argued that what is left is often relatively trivial – as in the case of the 'Dowel Construction Rack or Holder' where the technique largely conditions any subsequent thinking about the problem. The aims and briefs in each project area are quite diverse and although one can detect increasingly difficult technical demands, it is difficult to see how project I progresses through to project 18 in terms of design decisions which have to be made.

The book is a good and in many ways exemplary textbook introduction to wood-working techniques, but it clearly has to be used with caution in the context of designing. In some circumstances, it might be thought desirable or necessary to pre-empt possible design solutions because something else has to be taught or introduced; however, it would be a pity – and arguably a negation of design education – if this approach were adopted exclusively.

John Cave

159 A false table for a fine finish

The mouth of the average saw-bench is too wide to obtain a really fine finish, particularly on difficult wood. This can be obtained by making a false table of plywood or hardboard with a batten against the operator's end of the table. Having fixed the fence, the saw is wound up through the false table and the cut made. In this way splintering is avoided and a fine cut obtained. If the riving knife is in the way, the false table is fed on cutting through to the end. Such a table can be used a number of times over.

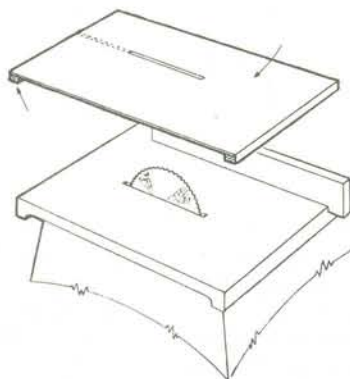


Fig. 159

145

Woodwork Aids and Devices

Robert Wearing

London: Evans Brothers, September 1981, £6.95

Many readers of *Studies in Design Education Craft and Technology* will find this one of the most interesting new books to appear for a very long time. The author offers 199 'Aids and Devices' that all craftsmen in wood will find invaluable. Some are familiar, many are new and remarkably ingenious. Nobody has yet taken the trouble to present them in this remarkably effective way.

The best way to give readers a taste of the volume is to present a few examples and a selection are reproduced here. This is but a small sample of what is available.

(It must be emphasised that the copyright of the following material remains the possession of the author.)

John Egglestone

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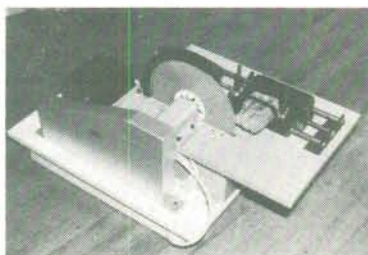
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84 Improved scratch tool

Scratching an ovolo moulding or a small rebate near the edge of a piece presents no problem since, if the tool slips outwards, no damage is caused. When scratching an inlay, for example, the same distance in from the edge, any outward slip will damage the work. The second fence will prevent this on all components within the capacity of the tool.

Mark out and cut the mortises before sawing off the fences and shaping. Prepare the stem slightly oversize and plane down for a tight working fit. Plug the mortises with an offcut of stem when drilling the hole for the locking pin. The stem is cut away at the centre, firstly to take the cutter and secondly to take the brass plate. This latter is cut to shape, drilled for the screws, then rounded on its lower edge. Cutters for this tool should be of a standard width and thickness. Ideal material is a heavy gauge cabinet scraper from which pieces can be sawn and filed.

For work on a corner or well in from an edge, one of the two fences is simply removed.

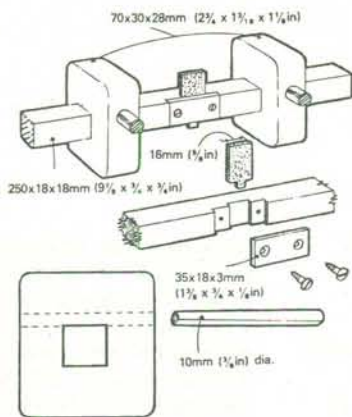


Fig. 84

61

142 Lathe chuck guard

Small wooden or metal items often need to be polished in the lathe. These can easily and quickly be held in the three jaw chuck. However, holding the glasspaper or emery cloth in the hand is dangerous as nothing is easier than to knock the knuckles on the chuck jaws. This guard, A, makes it possible to sand and polish even the smallest knob in complete safety.

Make the base plate from block-board or 20mm (3/4 in) hardwood. Glue and pin below this a suitable block to fit closely into the lathe bed. The upright guard plate is from 8mm (5/16 in) plywood. A small drill in the chuck will give the centre on which to bore the hole, say 25mm (1 in) in diameter. The guard is shown in position at B with a small knob in the chuck as the workpiece. The base must be cut to such a length that when it is pushed hard against the lathe headstock the chuck is just cleared. A long bolt through the lathe bed, with a wooden block could be used to lock the guard firmly but in practice this has not really been found essential.

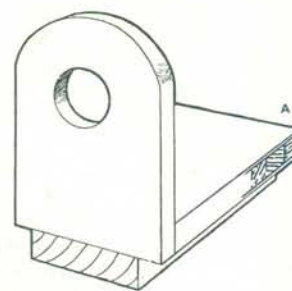


Fig. 142

122

143 Lathe steadies

The turning of long thin components is made difficult and sometimes impossible by whip but this can be overcome by supporting at the middle by a steady. A and B show a bolt-on model for a round bed lathe. The pivoted notched support is kept in contact with the work, in theory, by a wedge behind it. Two small woodscrews holding a rubber band over the top keeps the support firmly against the work. A similar arrangement, C, serves for lathes with a conventional flat bed. An alternative method using two roller bearings shown at D make either an improvement or an unnecessary complication, according to preference.

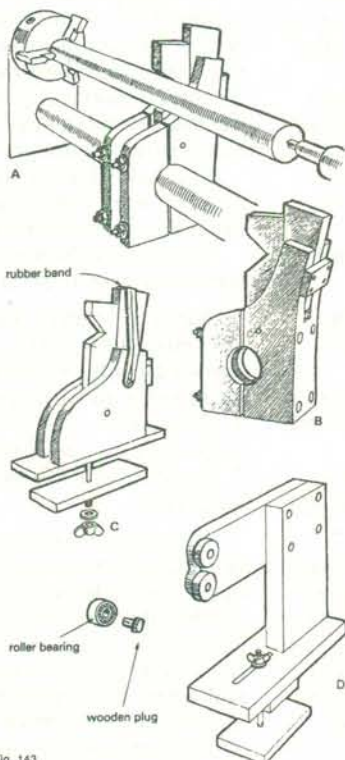


Fig. 143

123

179 Sawbench tool to put keys into mitred frame joints

Picture frames are frequently strengthened by saw cuts into which veneer strips are glued as described on page 24. Larger frames with mitred corners can be similarly strengthened with stronger keys either of plywood or prepared hardwood strips. The saw cuts can easily be made on the circular sawbench.

The frame is mitre-jointed and glued up and at this stage the joint is quite fragile. The device the joint is held in for sawing is a false face to be screwed on to the face of the tenon tool described on page 153. Sizes will naturally have to fit the existing tenon tool. The false face can be from 13mm (1/2 in) plywood, and the two fences can be of any convenient hardwood, say 20mm (3/4 in). These are glued and pinned on at angles of 45° but it is more important that the angle between the fences is an exact 90°, which can be set up with a set square. The lower ends of the fences are liable to be cut during the operation, so pins or screws should not be put in too low. The workpiece is held between the fences and secured with bar, bolt and wing nut.

Choose a circular saw of convenient gauge and adjust the saw height to give the greatest depth

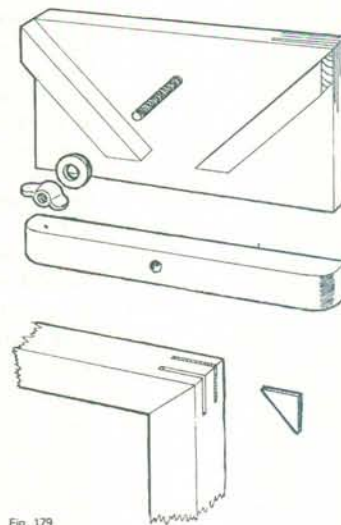


Fig. 179

of cut without coming through. Finally the tenon tool is adjusted to make the saw cut in the desired position. If required either make a second cut or adjust the fence to widen the cut to suit the material to be used for the key. Make the keys slightly oversize and clean up after gluing.

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