

VINTAGE WORDS OF WISDOM

# WOODWORK TOOLS

AND HOW TO USE THEM



BY  
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## PUBLISHER'S FOREWORD

All woodworkers know that tools appropriate for the job in hand improve the quality of the work and render the process easier and more enjoyable.

This **Vintage Words of Wisdom** title, published in 1925, provides a comprehensive guide to hand tools for the keen woodworker. In addition the author provides advice and guidance as to the best use of each tool to ensure both efficiency and effectiveness. Many of these tools have remained largely unchanged for centuries but it can be argued that their development reached its zenith during the late-Victorian age. This was when production techniques and a better understanding of materials combined to enable the mass production of high quality, durable tools to a consistent standard.

In the late twentieth century the main change for the amateur woodworker has been the introduction of numerous power tools. Obviously this volume pre-dates the many drills, sanders, saws and cutters that have become a common feature of the modern workshop. Nonetheless the fundamentals outlined in *Woodwork Tools and How to Use Them* remain as relevant now as they were almost a century ago and there is much sound advice for the woodworker and hobbyist of today. Also, of course, some of us have inherited tools from fathers and grandfathers, or have picked up vintage tools from market stalls. There is a certain pleasure and satisfaction from using and caring for family heirlooms or tried and tested vintage tools that were made to last.

Some of the techniques present a potentially satisfying challenge such as setting and sharpening a saw or drill bit. Others offer good, plain common sense in how to make the best use of each tool. The language used may sometimes be quaint but this adds rather than distracts. For example when using the plane the author suggests:

To the beginner, we would say: stand at the side of your bench in exactly the same position as though you were going to lead off in a boxing bout; then drop the hands, grasp the plane and proceed to use it.

This is not the sort of advice one expects to find in the typical modern workshop manual!

A further characteristic of this book is the idea of self-sufficiency - making your own plumb line, grinding and sharpening the blade of your plane. Concepts accepted by our forefathers but the easy availability of replacement blades and bits has made us more inclined simply to buy a new one.

The text is supported by a wealth of detailed drawings that illustrate clearly all the tools, their use and maintenance. *Woodwork Tools and How to Use Them* offers wisdom from the past that remains just as relevant today and should enhance the enjoyment that any woodworker gets from their hobby.

## VINTAGE WORDS OF WISDOM

The **Vintage Words of Wisdom** titles are not simply facsimiles of old books. They have been carefully selected and professionally produced as high quality ebooks. Our aim is to make the best vintage books on popular topics of interest more widely available again. The books range from practical titles that include wisdom from times past to unashamedly nostalgic works that will appeal to those who may remember these or similar titles from their childhood. Often amusing and quaint, these vintage volumes also contain wise words and advice that may have been forgotten in the intervening years. So often it is worth revisiting the past to remind ourselves that the best ideas stand the test of time. Above all, the **Vintage Words of Wisdom** titles are highly entertaining and provide a fascinating snapshot of life in days gone by. We have chosen books with wonderful illustrations, exciting stories of daring and adventure, practical advice and charming nostalgic descriptions of a simpler life.

Titles include:

*Poultry-keeping*

*Room and Window Gardening*

*Ferns and Fern Culture*

*Woodwork Tools and How to Use Them*

*Home Carpentry: A Practical Guide for the Amateur*

*The Boys' Book of Aeroplanes*

*The Railway Age*

*Sky Roads of the World*

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## AUTHOR'S FOREWORD

It has been said that success in life is due chiefly to the gift of knowing how to make use of one's opportunities. Certainly, in a not unimportant walk of life, success in woodwork is due, not so much to the quality of our tools, as to knowing exactly how the tools we possess should be used. To most of us the use of a saw or a plane or a chisel is obvious. We know what each can do and we have seen each do it. But to know just *how* to handle and manipulate the saw or the plane or the chisel to effect the desired result with a minimum of effort and without injury to either tool or material - that is knowledge worth having, and the earlier it is acquired the better.

The aim of the volume is twofold. In the first place it is designed to meet the needs of the home worker who, in his evening task, has seldom the opportunity of getting helpful advice from an expert, and to whom the suggestions offered may be of valuable assistance. In the second place it should appeal to those engaged in cabinet-making, joinery, carpentry, wood-turning, pattern making and other trades who, although possessing a slight knowledge of larger tools, may lack actual experience in their uses. It is hoped, too, that to teachers and students in Technical Schools the volume may be of practical aid.

The many illustrations in the book are the work of the Author (Mr. William Fairham) and Mr. Edgar Newton.

J. C. S. BROUGH

# THE SAW

## RIP SAW • HAND SAW • PANEL SAW SELECTING SAWS • THE SET OF A SAW

**O**N receiving boards from the saw mill or timber merchant, the worker will have to convert his timber to suitable sizes for the particular work he may have in hand, and for this purpose he will require a rip saw or a hand saw.

**Rip Saw** - Fig. 1 is an illustration of a hollow backed, taper ground rip saw with a close-up pattern handle. This type of saw is for cutting in the direction of the grain, and is made in the following sizes so as to suit various workers, 20 ins., 22 ins., 24 ins., 26 ins. and 28 ins. Taking the average height of a worker at 5ft. 6 ins., a 26 in. rip saw will be of convenient size for all general purposes.

FIG. 1.  
RIP SAW, TAPER GROUND AND  
HOLLOW BACKED, WITH CLOSE-  
UP PATTERN HANDLE.

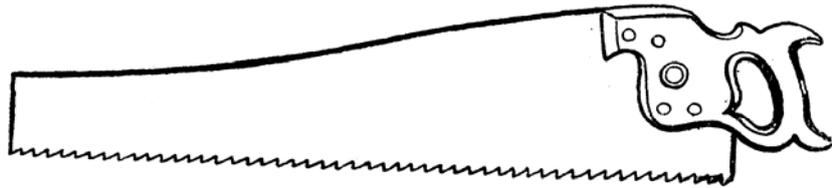


FIG. 2.  
INCREMENT TOOTHED SAW,  
WITH FINE TEETH AT POINT  
AND COARSER TEETH AT HEEL.

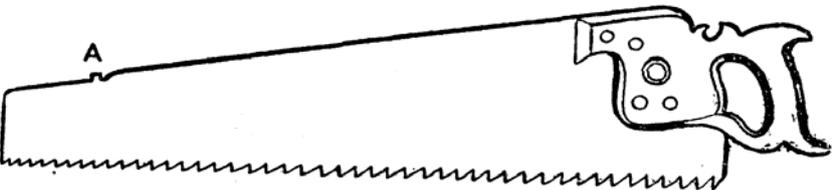
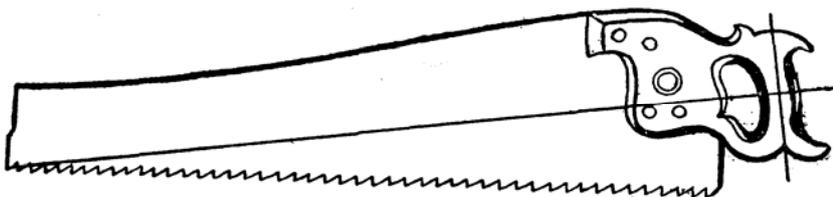


FIG. 3.  
ALIGNMENT OF BLADE. THE  
TWO LINES DRAWN ARE AT  
RIGHT ANGLES.



The rip saw as usually stocked by the various tool shops has all its teeth of the same size; and, whilst this type of saw answers admirably for every-day work, the buyer or user should have his attention drawn to the increment toothed saw (Fig. 2). This type of saw has fine teeth at the point to commence the cut, and coarser teeth at the heel of the saw to finish the cut. Beginning the cut with fine teeth gives a smooth cut; but, these fine teeth soon become clogged up with sawdust, and to some extent they lose their efficiency. As this partial clogging up of the saw gullet would become troublesome, the size of the teeth is gradually increased, thus

bringing the larger teeth into action just when they are needed.

The increment toothed saw obviates the roughness and tearing by coarse teeth at the commencement of the cut and minimises the splintering of the wood at the bottom of the saw kerf. This type of saw makes the blade strongest at the heel and lightest at the point; and, considering that once a saw is bought it usually lasts a lifetime, the little extra cost in the first place is not worth considering.

Fig. 4 shows the teeth of a rip saw, and it should be remembered that, when sawing with the grain of the wood, the action of the saw teeth should be similar to mortising; that is, the teeth should act similar to a series of small chisels set one behind the other, each tooth cutting out a shaving the full width of its edge, and carrying away this fine shaving or sawdust in the gullet of the teeth. It is for this reason that the cutting edge of a rip saw is filed at right angles to the side of the saw blade, leaving a broad chisel-like edge to give the requisite action.

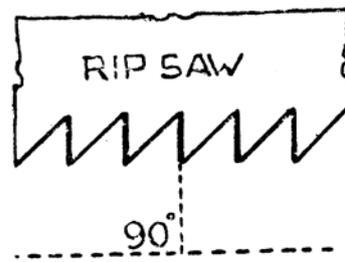


FIG. 4.—TEETH OF RIP SAW.

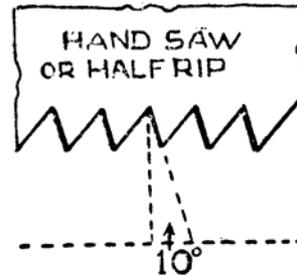


FIG. 5.—TEETH OF HAND SAW.



FIG. 6.—DETAILS OF TEETH.



FIG. 7.—TEETH, "M" SAW.



FIG. 8.—TEETH OF LIGHTNING SAW.

**The Hand Saw** is a compromise between the rip saw and the cross cut saw, and is used in a general way for both ripping and cross cutting. It is similar in shape and size to the rip saw, with the exception that the teeth are pitched at a different angle so as to enable the worker to cut with the grain, and to some extent across the grain. It is used for cutting tenons of large size, and is probably the handiest saw for the beginner.

The hand saw is also known as the half rip saw, and is made with increment teeth. The approximate angle of the teeth is shown at Fig. 5. Tooth and gullet are shown at Fig. 6.

Remember that a cross cut saw will rip timber more easily than a rip saw will perform the cross cutting operation.

**The Cross Cut Saw**, as its name implies, is used principally for cross cutting planks and fairly thick timber; a handy size is 24 ins. long. It has about 6½ teeth to the inch, and a bevel is filed on the front or cutting edge. The wood fibres are severed first on one side of the saw kerf by one tooth, and then on the other side of the saw kerf by the next tooth; the ridge left between them crumbles away and is carried out of the groove by the gullets of the teeth, which successively follow on. The action of the teeth is that of a series of knife-like edges to sever across the fibres of the wood, the centre portion which lies between the two cut lines naturally crumbling away.

**The Panel Saw** is a smaller type of cross cut saw, measuring from 18 ins. to 24 ins. long, and having eight or ten teeth to the inch. This saw is used for cutting panels and thin boards up to, say, one inch in thickness; its action is exactly similar to the cross cut saw.

**Selecting a Saw** -When selecting a saw the following points are of importance to the user.

A good, sound beech handle should be fixed to the blade, and there should not be the slightest play on the rivets. If the handle rocks on the rivets, it will quickly cut through them or shear them off. Give a sight test up the back of the saw blade and see that the handle is perfectly in alignment; otherwise you will always experience a difficulty in sawing true.

A line drawn from the front tooth of the saw to the centre of the handle should cross the grip of the fingers at a right angle (Fig. 3). The temper of the blade cannot be successfully judged by the buyer; therefore buy a standard make. Many workers judge a saw by springing the blade about twelve inches from its normal position and sighting along its edge to see if it gives a free curve; that is, without bumps or buckles. It is then released and again sighted to see if it has returned to

its original position. This method, however, is not to be recommended as it does the saw no good, and the salesman will probably object. Leave the question of temper to the maker; for, if a saw is too brittle and breaks, any well known maker will replace it free of charge.

See that the saw is ground tapering in its width, *i.e.* thinner at the back edge than at the toothed edge. Test this with a wire gauge. A well-polished saw is not so apt to rust so quickly as a badly-polished one. A number is generally stamped on the steel blade at the heel of a saw. This figure denotes the number of teeth to the inch, or the number of points to the inch. Avoid a saw over elaborated with fancy etchings. The small notch and nib A, Fig. 2, is merely an attempt at ornamentation, and is of no practical value. In some cases it is left off.

British-made saws are generally stamped with the number of teeth to the inch, and foreign or American saws are stamped or measured with the number of points of the teeth to the inch. The present-day tendency, however, is to standardise, and many English saw makers now quote their saws as points to the inch. The thickness of the blade should be about No. 19 gauge at the toothed edge; thicker plates offer more friction, and are consequently much more laborious to use.