Shears and Scissors

dealer's service

PRODUCT KNOWLEDGE

> In selling shears or scissors or anything for that matter, the principle of prime importance is that you know more about the product you are selling than the person to whom you are talking.

Therefore, knowledge of the uses of the various styles and patterns of shears and scissors is the first requisite of successful selling.

The manufacturing of fine quality shears and scissors is a manual rather than a mechanical art. Therefore, continuous training of apprentices is required to assure the maintenance of a high level of individual hand-craftsmanship and expertness in a number of operations calling for specialized skills. Fully seventy-five percent of the process involved depends on manual craftsmanship.

On the average, in the manufacturing of quality shears there are approximately 176 operations required and about the same procedure is called for in the making of a pair of scissors, except the welding process is omitted.

Shears generally measure six inches or more in length, have one small handle for the thumb and the other larger, for the insertion of two or more fingers. Shears are made to do the great variety of heavier cutting jobs in the home and industry. Barber shears are the exception to these rules, being both more than six inches in length and having equal rings.

Scissors are usually the smaller sizes ranging in size from three to six inches, with two small matching handles, and are designed for the lighter tasks of hand cutting. Few people stop to think that without scissors many people would not earn a living, or could not do their work properly such as artists, barbers, chiropodists, doctors, draftsmen, dressmakers, editors, electricians, salesclerks, tailors, teachers, upholsterers, and window dressers. In addition to the many styles made to meet individual requirements, each style is often made in several sizes and shapes.

## CLASSIFICATIONS

Shears may be classified according to construction as cast, cold-forged steel, hotforged solid steel, and steel laid. Scissors are either cast, cold-forged or hot-forged.

Cast shears and scissors, as the name implies, are made from molten metals being cast in form. Shears and scissors made in this way cannot be tempered, "set" or satisfactorily resharpened. They are very brittle and will break easily.

Cold-forged steel shears and scissors are a pressed steel products and, consequently, comparatively soft.

Hot-forged steel shears and scissors are forged from one piece of steel, hardened and tempered. They are far superior to those of cast or cold-forged construction, but are not suitable for heavy work. Shears made in this way are satisfactory for barbering and light household use.

Die and tool making, forging, grinding, heat treating, polishing and finishing,

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which occur in that order, are the principal operations in the manufacture of quality shears and scissors. Each operation determines the success of the one to follow, for a defection at any point along the line will affect the final quality of the finished product.

### DIE MAKING

Die making, the first operation, is one of the most important processes in the manufacturing of quality shears and scissors and one which requires the highest skills. In making a die for a pair of shears, for example, the form of the shear is first sculptured, partly by hand and partly by machinery, out of a solid block of steel, sometimes weighing as much as 500 pounds.

#### FORGING

Forging requires the use of power hammers weighing from 300 to 2,500 pounds. In this operation, red hot bars of cutlery steel are drawn and forged in the dies after which the excess stock is sheared off and the forging is further prepared for welding of crucible steel cutting edges. After the welding operation the excess steel is again trimmed off and a long succession of grinding and fitting operations prepares the shears for heat treating.

#### HEAT TREATING

In the heat treating process each blade must be hardened and tempered and uniformity must be absolute to insure the long-lasting cutting edges. Frequent inspection, following the application of precision instructions, is required to attain the necessary uniformity and all the grinding is held within specifications, to prevent the drawing off of temper. The shear blades are then individually matched so as to maintain the necessary standards of hardness similarity.

### THE INLAID PROCESS

Shears made by the inlaid process means that each shear is made of two pieces of steel. In this type of construction a piece of the finest crucible steel is welded to the inside of the blade. This takes a very hard temper, making a keen long lasting cutting edge.

- 1. The Frame is constructed of fine quality tough, drop-forged steel that is practically unbreakable.
- 2. The Blade is then welded to the frame. The

blade is made of high carbon crucible steel which remains sharp extra long and is protected by the frame.

NOTE: Tough, unbreakable steel must be malleable; will not, therefore, hold an edge. High carbon steel is very hard, and will hold an edge, but will also break. Combination of two kinds of steel in shears produce the finest shears that can be made.

#### FINISHING

Numerous specialized polishing operations prepare the shears for plating, after which they advance to the finishing department where the mates are reassembled, adjusted and tested by skilled artisans. The finishing operation involves a regular series of twisting, bending and peening operations which bring the blades into exact alignment.

Each shear blade is constructed from the forging stage with a longitudinal twist from heel to point which, when two blades are properly pivoted together, insures what is known as shear stress or the equal pressure of each blade upon the other from the back of the blade to the front.

It is particularly important for each blade to be accurately drilled for the screw which holds them together. These screws must be fabricated to watchmaker accuracy.

The screws are fitted accurately to the thousandth of an inch. An accurate screw adds to the life of the scissors, enables them to cut smoothly and permits proper repair and readjustment when necessary.

#### FINISHES

Shears and scissors are generally finished in one of several ways: full nickle plate, nickle blades japanned handles, full chromium plate, polished steel and gunmetal.

Full Nickel Plate: Full nickel plate is the most popular finish for shears and scissors.

Japanned Handles: Japanned handles are sometimes preferred to plated handles, especially by those who shear for a long period of time. They find the japanned handles more comfortable and less tiring to the hands.

Chrome plating on shears and scissors represents the biggest improvement in many years.

- It effects the following advantages:
- A. Chrome plate is rust resisting. It keeps the shears new and shiny indefinitely.
- B. Chrome plate protects the edges. It keeps the shear sharp longer.

C. Chrome plate gives a smoother cut than is available with other finishes.

The combination of these things provides shears and scissors which are unquestionably the longest wearing ever made.

Handles: The handles of shears and the more expensive scissors are fitted to the contour of the hand to give maximum comfort in cutting.

Joints: The joints used in the manufacturing of shears and scissors are of three kinds: oval, flat and jointless.

The jointless pattern is the easiest to manufacture. The oval next; and the flat joint is the most difficult of all.

Part of the cost of shears and scissors is therefore determined by their method of joint construction.

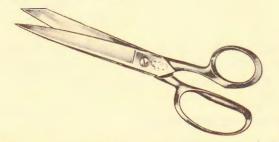
Some manufacturers make left-hand shears shaped to be held in the left hand.

Shears are made in three popular patterns—straight, bent trimmers and the barber type.

#### **BASIC STYLES**

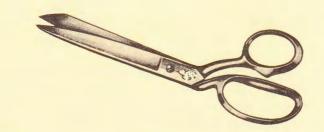
The following will give you the most popular and the basic styles of shears and scissors. Learn their use; be able to recognize them; and you will have taken the first step in learning to sell shears and scissors.

#### STRAIGHT TRIMMERS



These are generally known as the household or dress making shear. They are the most popular common straight-handled shears used by the housewives.

## **BENT TRIMMERS**



The handles are bent so that cloth or other material can be cut lying flat on a surface. Bent trimmers are used by professional cloth cutters, dressmakers and others. The bent trimmer is also suitable for any of the purposes a straight trimmer is used.

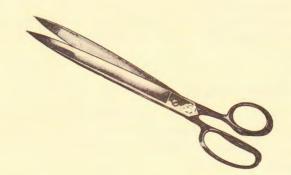
### **PINKING SHEARS**



The primary importance of pinking shears is the finishing of inside of seams of dresses and other garments to make them ravel-proof. Pinking shears eliminate tedious hand pinking, overcasting, picoting, and bias binding.

Industrial type of pinking shears are used on heavier fabrics, aeroplane cloth, swatches and tailors' samples.

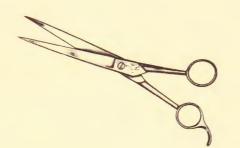
### PAPER SHEARS



These shears are specially designed with a long blade to speed up the work in mailing departments, newspaper plants and offices. They cut more easily because of long swinging blades.

### PAPER HANGERS' SHEARS

These like paper shears are designed to speed up work, except that the blades are wider, and larger finger holes for more comfort. BARBER SHEARS



As the name indicates, these shears are used for cutting hair.

## **KITCHEN SHEARS**



The long shank of the kitchen shear adds great leverage and makes hard cutting easy. They can be used for such jobs as cutting light wire, linoleum, rope, etc., as well as for preparing fish and poultry.

## TAILORS' SHEARS

Tailor shears have long blades designed to cut cleanly and easily from the joint to the point of the blade. The handles are bowed and shaped to fit the hand.

## **OTHER TYPES**

Other types of shears are manufactured and each are designed for specific work. Some of these other styles include carpet or upholster, tailor point, rug, tire and fetlock, rubber, and candy or glass shears.

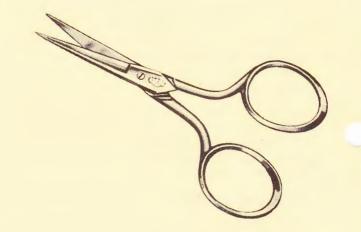
Scissors may usually be separated into the following general classes:

### LADIES' HANDY SCISSORS



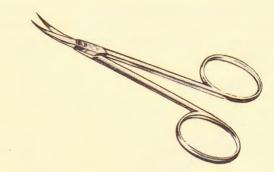
Generally these scissors have one rounded and one pointed blade. They vary in length from three to six inches.

### EMBROIDERY SCISSORS



Each blade of these scissors have a very sharp point. They are used for fine work in making needlework and other fancy goods.

# MANICURE SCISSORS



Manicure scissors are of two designs, the cuticle scissors, having two sharp pointed curved blades, and the pedicure or nail scissors, having two short rather heavy blades for cutting finger and toe nails.