To all whom it may concern:

Be it known that we, WILLIAM CHARLES FARRER AND GEORGE GLOSSOP, subjects of the King of England, both residing at Sheffield, in England, have invented certain new and useful Improvements in or Relating to Shears and Similar Tools; and we declare the following to be a full, clear, and exact description of the same.

10 This invention relates to shears, scissors and other scissors-like tools, its object being to provide an improved and stronger construction of the overlapping portions between the handle parts and the pivot. As usually constructed the handle part or tang (hereinafter referred to simply as the handle) is about half the width of the blade part at the junction of the two and at this point the handle is stepped, set back or cranked to assist in bringing the two handles into approximately the same plane when assembled, and, in the closed position of the tool, to correspond with the “heel” or corner at the base of the blade part of the other member which is usually more or less cut away and slightly beveled. This construction is decidedly weak at the stepped, set back or cranked junction of the handle and blade, but according to the present invention a stronger and better method of manufacture is provided by forming the “heel” or back of each blade at the handle end with a lengthwise taper on the inner side gradually and smoothly merging into the full thickness of the blade. Preferably the remaining width of the blade on the handle side of the pivot is oppositely inclined on the inner side in a similar gradual manner and the shoulders at one side of the tapered heels on the two blades may be utilized as a stop in the closed position of the tool.

In the accompanying drawings:—

Figure 1 is an elevation of one blade of a pair of garden shears according to this invention.

Fig. 2 is an edge view of Fig. 1.

Fig. 3 is a transverse section on the line 3—3 in Figs. 1 and 2.

Fig. 4 is an edge view of a slight modification, one of the blades being shown in dotted lines.

Fig. 5 is a section on the line 5—5 of Fig. 4.

Fig. 6 is a perspective view.

Fig. 7 is a perspective view of a portion of one of the blades.

Like letters indicate like parts throughout the drawings.

In carrying out the present invention the “heel” or back of each blade A at the handle end is formed with a lengthwise taper B on the inner side, that is to say, the side which, when the two blades are pivoted together faces the other blade. This taper B gradually and smoothly merges into the full thickness of the blade A at or beyond the pivot point C. The production of the taper B forms a shoulder D with the thicker part of the blade (which extends to form the handle or tang E) the shoulder D running approximately lengthwise of the blade as far as the pivot C or nearly so, but not beyond it. This thicker part of the blade which is separated by the shoulder D from the tapered “heel” B and forms the junction of handle and blade, is preferably made of gradually increasing thickness from about the pivot C toward the handle E as indicated at F or is otherwise longitudinally inclined on the inner side in an opposite manner to the taper B of the “heel” part, so that when the two blades are pivoted together and closed this thickened or inclined part F on each blade more or less fills the tapered “heel” of the other.

When the blade and handle are of approximately the same thickness as in the shears illustrated, in Figs. 1 to 3 the gradually inclined junction F may be less in degree than the taper B, although oppositely arranged, and may be produced wholly or partially (as shown in Fig. 2) by bending the blade, such bending also bringing the handles into approximately the same plane.

When the handle is double the thickness of the blade, as is usual in scissors, the gradually inclined junction F of blade and handle is preferably equal in degree but oppositely arranged to the taper B on the heel, as shown in Fig. 4, this construction bringing the handle into the same plane without any bending.

The shoulders D on the two blades may conveniently be utilized as a stop limiting the movement of the blades toward one another when closing the tool.

In Figs. 2 and 3 the taper B is shown more...
gradually near the back of the blade than it is near the shoulder D although it may, of course, be even throughout.

What we claim and desire to secure by Letters Patent is:—

1. A tool of the character described comprising two pivotally connected members each including a handle section and a blade, the inner face of the back of each blade on the handle side of the pivot being provided with a lengthwise extending taper B that gradually and smoothly merges into the full thickness of the blade adjacent the pivot, substantially as and for the purpose set forth.

2. A tool of the character described comprising two pivotally connected members each including a handle section and a blade, the inner face of the back of each blade on the handle side of the pivot being provided with lengthwise extending tapered surfaces B, F, oppositely inclined to the body of the blade, substantially as and for the purpose described.

3. A tool of the character described comprising two pivotally connected members each including a handle section and a blade, the inner face of the back of each blade on the handle side of the pivot being provided with a lengthwise extending taper B that gradually and smoothly merges into the full thickness of the blade adjacent the pivot, said tapered section being of less width than the blade to provide on the body of the blade a shoulder, which contacts with the similar shoulder on the other blade to limit closing movement of the blades.

4. A tool of the character described comprising two pivotally connected members each including a handle section and a blade, the inner face of the back of each blade on the handle side of the pivot being provided with a lengthwise extending taper B that gradually and smoothly merges into the full thickness of the blade adjacent the pivot, said tapered section being of less width than the blade to provide thereon a shoulder, which contacts with the similar shoulder on the other blade to limit closing movement of the blades, the taper being more gradual near the back edge of the blade than adjacent the shoulder.

In testimony whereof we affix our signatures in presence of two witnesses.

WILLIAM CHARLES FARRER.
GEORGE GLOSSOP.

 Witnesses:
ARTHUR H. GREENWOOD,
FLORENCE IVY MAY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."