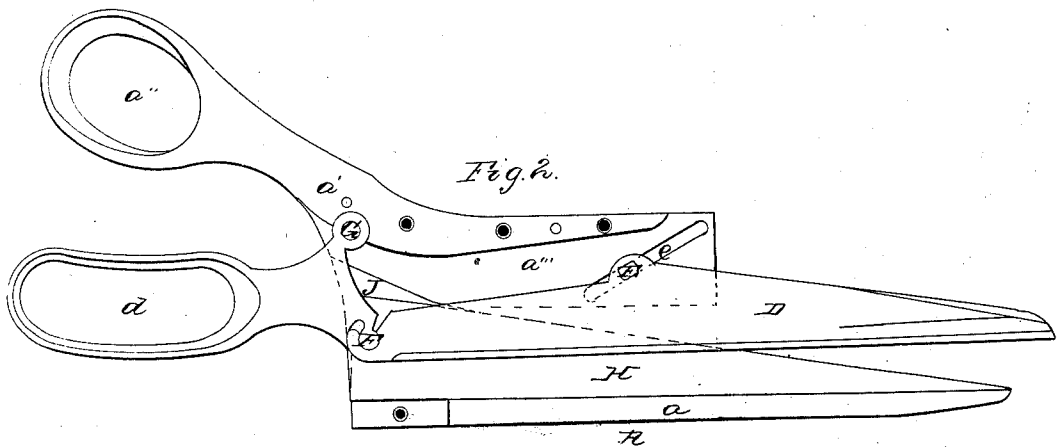
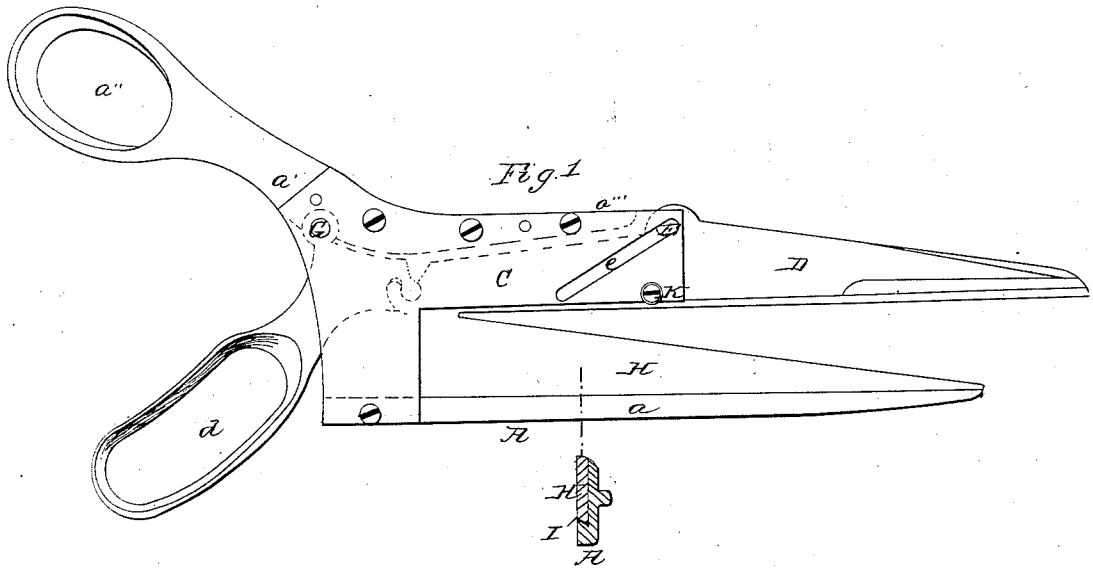


J. Smith,

Shears.

N^o 26,955.

Patented Jan. 24, 1860.



Witnesses.
Geoffrey
C. Hume

Inventor.
Joseph Smith

UNITED STATES PATENT OFFICE.

JOSEPH SMITH, OF CINCINNATI, OHIO, ASSIGNOR TO HIMSELF AND ROBERT R. LYND,
OF SAME PLACE.

SHEARS.

Specification of Letters Patent No. 26,955, dated January 24, 1860.

To all whom it may concern:

Be it known that I, JOSEPH SMITH, of Cincinnati, Hamilton county, Ohio, have invented a certain new and useful Improvement in Tinners' and other Shears; and I hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, making part of this specification.

10 The invention relates to the class of shears which act with a nearly equal draw cut throughout the entire length of the blades.

In the accompanying drawings Figure 1 is a side elevation of my shears in their extended condition. Fig. 2 is a side elevation, the blades being partially closed and a portion of the casing being removed.

The lower blade A, consists of a back *a*, shank *a'*, handle or bow *a''*, a lug or projection *a'''*, which extends forward from the rear portion or shank *a'*, and a steel bit H whose back is secured in a recessed or dovetailed notch I in the blade back, its front or ground edge being held by the stud J so that however much or often the bit is ground the length and breadth of the blade will remain unchanged and its cutting edge will preserve its original position in the shears.

The lug *a'''* and casing plate C confine laterally between them the upper blade D. The lug *a'''* and plate C have corresponding oblique slots *e* which receive guides E projecting from the upper blade D. The guides E consist of a single pin, flattened so as to afford an extended bearing surface where it engages in the slots *e*, and rounded in its intermediate portion so as to be capable of turning in the blade D. The handle *a'* of the blade D is pivoted (G) to the shank *a'* at a point considerably above the line of the cutting edge of the lower blade and is connected to the blade D by a wrist F nearly in line with the cutting edge of said blade.

K, is a set screw in the plate C of regulate

the bite of the shears by adjusting their lateral pressure against each other. The cutting portion of the blades being detachable may be ground separately from the shears and replaced or substituted by others with very little trouble.

It will be seen that when the shears are extended, the two blades will stand well apart at the throat so as to admit a great thickness of goods. The action is first to close quickly the heel or inner end of the blade D down upon the work after which the blade D acts upon the blade A with a nearly uniform draw cut from the heel to the point. The action of the wrist results however in a slightly increasing "draw" upon the upper blade D as it closes upon the lower blade, thus rendering the action more powerful as it approaches the part of the blades which is least supported and most distant from the hand of the operator. Shears on this principle of construction may be advantageously employed in cutting great thicknesses of cloth and are also applicable for use on other refractory substances such as pasteboard sheet metal leather &c.

The following is what I claim as new and of my invention herein and desire to secure by Letters Patent:

1. The oblique guide slots *e*, guide pin E and wrist F, constructed combined and operating in connection with the blade D and handle *a'*, substantially as and for the purposes set forth.

2. The construction and combination of the dovetailed back *a*, stub J and movable bit H of the blade adapted in the manner set forth to preserve the original length and breadth of the blade and the position of its cutting edge.

In testimony of which invention, I hereunto set my hand.

JOSEPH SMITH.

Witnesses:

GEO. H. KNIGHT,
C. STEEMER, Jr.