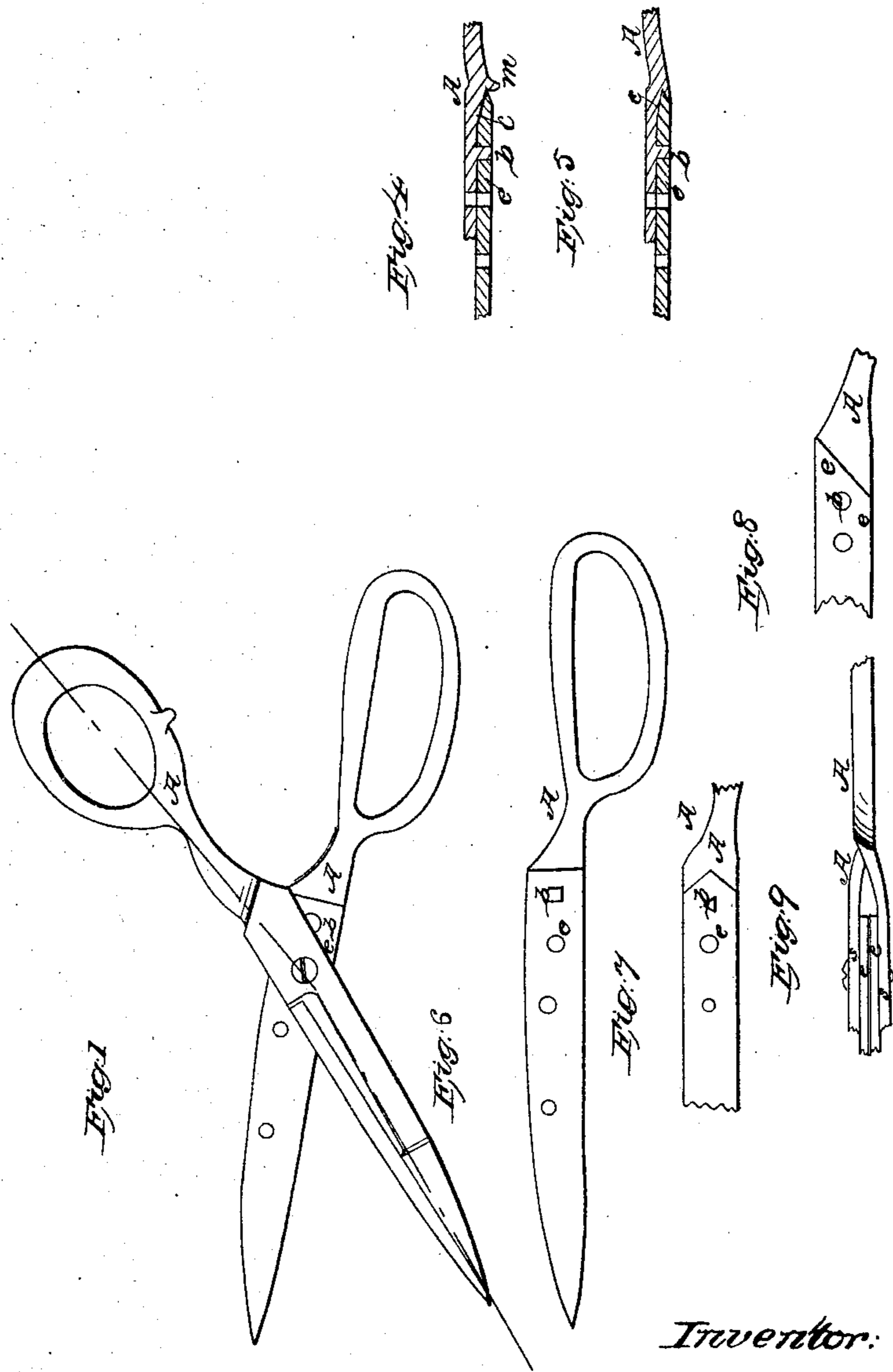


*N. B. Barnard,*  
*Scissors and Shears.*

*N<sup>o</sup> 69,960.*

*Patented Oct. 22, 1867.*



*Witnesses:*  
*Gilbert D. Fowler.*  
*Edwin A. Grodum.*

*Inventor:*  
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*By David A. Ba*  
*att'y.*

# United States Patent Office.

WILLIAM B. BARNARD, OF WATERBURY, CONNECTICUT.

*Letters Patent No. 69,960, dated October 22, 1867.*

## IMPROVEMENT IN SCISSORS AND SHEARS.

The Schedule referred to in these Letters Patent and making part of the same.

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, WILLIAM B. BARNARD, of Waterbury, in the county of New Haven, and State of Connecticut, have invented certain new and useful Improvements in the Construction of Scissors, Lamp-Trimmers, Shears, &c.; and I do hereby declare the following to be a full and exact description thereof, reference being had to the accompanying drawings, forming a part of this specification, and in which—

Figure 1 is an elevation of a pair of my improved shears spread open.

Figure 4, a sectional view of joint between the blade and handle, before said joint is finished.

Figure 5, a similar joint, as it appears finished.

Figure 6, plan view of lower blade.

Figures 7 and 8, plans showing variations in forms of the end of the blade-tang and of rivets used.

Figure 9, elevation, illustrating cheaper form of shears, without rebate or recess at the joint of blade and handle.

Similar letters indicate like parts in all of the figures.

My invention relates to improvements in the form and manner of connecting the steel cutting-blades of scissors, shears, or similar instruments, to cheap handles of malleable metal when held together by rivets, substantially as described in the Letters Patent granted to me on the 27th day of December, 1864, and reissued March 27, 1866, and consists, first, in so shaping the ends of the handles to receive the tangs of the blades, as that a recess shall not be required in the end of the handle to receive the blade, but the blade may be riveted immediately upon its plane surface, thus greatly economizing the construction of the cheaper class of shears; second, in forming an overlapping joint, to be used with or without the aforesaid bevelled or lap-joint; and third, in the use of angular rivets to secure the blades to the handles of scissors, &c., and in combination therewith, irrespective of any particular form of joint, but applicable to all.

In making these improvements, the handles A, for the scissors or shears, are to be cast or forged of any suitable metal. For neat-finished shears the handles are formed with a rebate, *a*, at the end thereof, having its inner *c* bevelled, as illustrated in figs. 4 and 5 of the drawings, and provided with a slight projection, *m*, along the inner edge of the rebate, upon the face of the handle. A rivet, *b*, may be left projecting from said rebate, but I contemplate also the use of independent rivets in this connection. The ends of the tangs *e* of the steel blades for this form of shears or scissors, after being properly hardened and tempered, are each ground off to a bevel, the counterpart of that formed in the rebate of the handle upon one side, and are also slightly bevelled on the outer edge of the other or upper side, and being pierced with a rivet-hole, are then ready to be united. This is accomplished by laying the bevelled end of the tang *e* upon the bevelled edge *c* of the rebate, so that the rivet *b* shall project through the aperture pierced in the tang *e* to receive it, and the rivet is then headed and the projection *m* hammered down over the edge of the tang and into the recess left by the bevel on the upper edge of its end. An overlapping joint is thus formed along and over the edge of the tang, which is neatly finished by grinding it over exteriorly, when the blade is finished, on the grindstone. As before stated, the tang *e*, when laid upon and in the bevelled rebate of the handle, may be secured by means of an independent rivet, instead of a rivet cast with and made a part of the handle, as illustrated, and two or more rivets may be used if required. The ends of the tangs may be of any desired shape, as shall be found most advantageous. I prefer to cut them straight across, as seen in figs. 1 and 6; but, in such cases, it may be well to cut or round the corners, as that they may be partially embraced by the recess or rebate. They may, however, be cut in a curved shape, or in angular form, as illustrated in fig. 7, or diagonally, as seen in fig. 8, and also be notched at pleasure. And I contemplate all forms of tangs to the blades, and of corresponding receptive recesses in the handles in making the overlapping joint, herein described, which are consistent therewith. In securing the handles to the blades, by rivets, I have found it an economy of time and labor to form the ends of the handles with a straight plane face, (*s*, fig. 9,) upon which to secure the tang, without recess or rebate to receive or embrace it; the shank of the handle, between this plane end *s* and the bow being so bent as to bring the bows together neatly in the same plane when the two divisions of the shears are united, as illustrated in fig. 9. As the end of the tang, in this case, is in no manner held or prevented from turning or working loose by any peculiarity in the formation of the handle, I prefer to make use of square or otherwise angular rivets *b b* for uniting the two. I contemplate,

also, the use of such angular rivets in the combination of the blades with the handles of shears, whatever may be the form of the joint between them, but especially in those cases where but a single rivet may be advantageously used.

Having thus fully described my invention, what I claim therein as new, as an improvement upon my shears patented December 27, 1864, and desire to secure by Letters Patent, is—

1. The combination of the cutting-blades of scissors, shears, or lamp-trimmers, with suitable handles formed without rebates or recesses to receive the blades, but provided with projecting homogeneous rivets to secure the same, substantially in the manner and for the purpose herein set forth.

2. I claim, also, overlapping the ends of the tang of a shear-blade with the inner edge of a rebate formed to receive it in the end of a suitable handle therefor, substantially in the manner and for the purpose herein set forth.

Witness my hand this 5th day of October, A. D. 1866.

WM. B. BARNARD.

Witnesses:

S. N. KELLOGG,

N. DIKEMAN