

No. 770,216.

PATENTED SEPT. 13, 1904.

O. BÖRS.  
SHEEP SHEARS.

APPLICATION FILED NOV. 9, 1903.

NO MODEL.

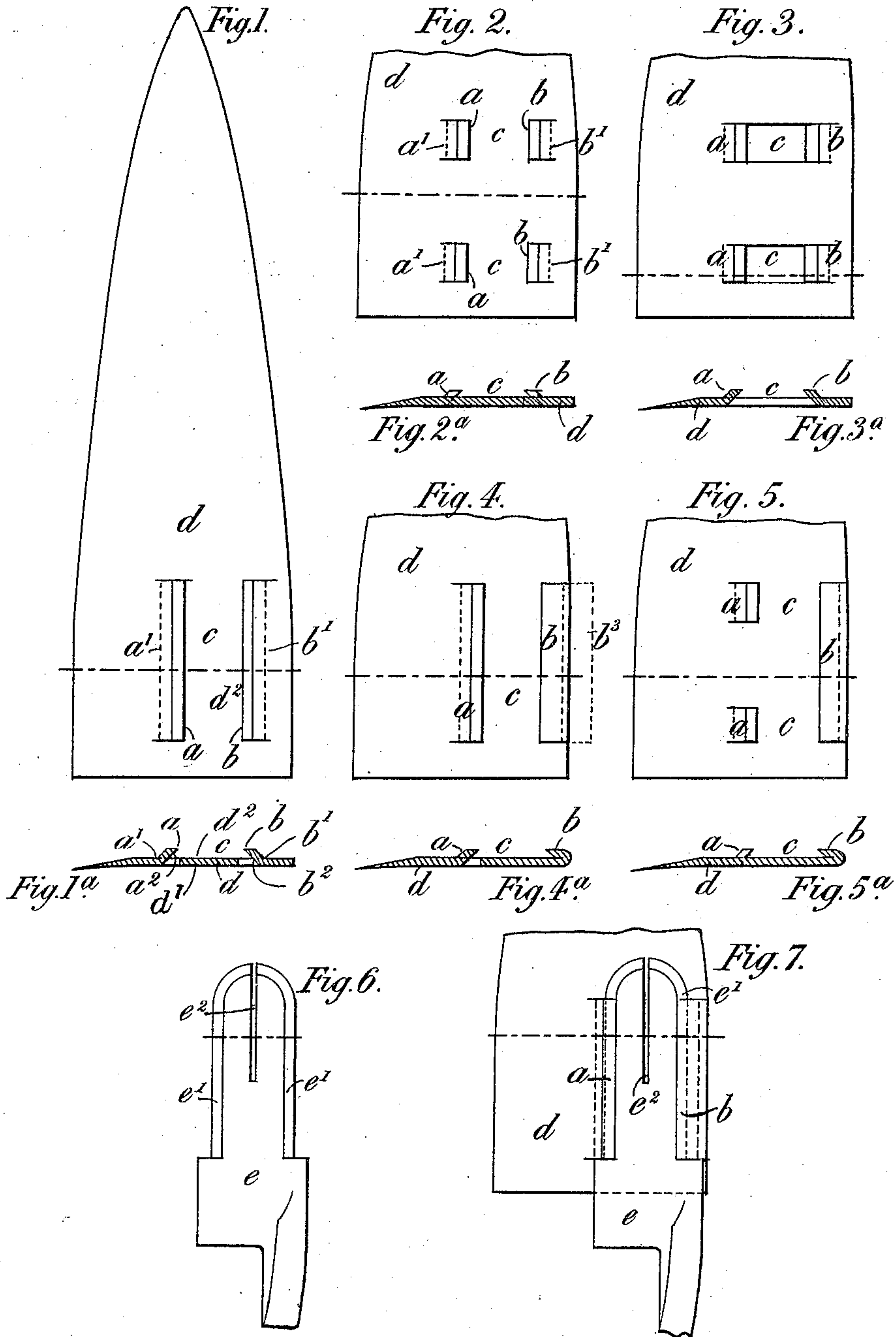


Fig. 6.  
Fig. 6.<sup>a</sup>  
Witnesses:  
James L. Norris, Jr.  
J. B. Keefe

Fig. 7.  
Fig. 7.<sup>a</sup>  
Inventor  
Otto Börs  
James L. Norris

# UNITED STATES PATENT OFFICE.

OTTO BÖRS, OF LEEDS, ENGLAND.

## SHEEP-SHEARS.

SPECIFICATION forming part of Letters Patent No. 770,216, dated September 13, 1904.

Application filed November 9, 1903. Serial No. 180,416. (No model.)

*To all whom it may concern:*

Be it known that I, OTTO BÖRS, a subject of the King of Great Britain and Ireland, residing at Eshald Park, Woddlesford, Leeds, county

of York, England, have invented certain new and useful Improvements in Sheep-Shears, (for which I have obtained a patent in Great Britain, No. 15,828, dated July 17, 1903,) of which the following is a specification.

This invention relates to improvements in sheep-shears of the class described in the specifications of British Patents Nos. 21,886 and 25,808 of 1902, granted to me, having detachable blades and requiring screws to secure the parts together.

The present invention has reference to the special formation of the extension upon the bow-shank and the dovetailed recess upon the blade, the object being to lessen the cost of manufacture, to dispense with holding-screws, and to make a more efficient junction of the parts.

The invention is characterized by forming the two edges of the recess upon the blade by cutting and pressing a part of the blade through from the inner face to the outer face or by forming the inner edge as described and the outer edge by turning over a part of blade provided for that purpose and as regards the extension on the shank by slitting same longitudinally, so as to make it resilient and cause it to hold in the recess by frictional contact without the aid of screws or like devices.

The annexed drawings illustrate the invention.

Like letters refer to like parts in all figures.

Figures 1 to 5 are outer face views of different blades covered by my invention; Figs. 1<sup>a</sup> to 5<sup>a</sup>, sectional elevations of same on the planes indicated; Figs. 6 and 6<sup>a</sup>, elevation and section of a bow-shank extension according to my invention, and Figs. 7 and 7<sup>a</sup>, elevation and section of the two said parts in position.

In the construction shown in Figs. 1 and 1<sup>a</sup> the inner and outer parts *a b* of the said recess *c* are formed by pressing parts of the blade *d* through from the inner to the outer face of the blade, each part remaining integral with the blade at its outer edge *a' b'* and the two such parts being slit from the blade

at their adjacent edges, Fig. 1<sup>a</sup>, and at their top and bottom edges, Fig. 1, so that the under planes *a<sup>2</sup>* and *b<sup>2</sup>* of such pressed parts are inclined from the plane of the inner face *d'* of the blade to such an extent that the said adjacent edges of said pressed parts are raised above the outer face *d<sup>2</sup>* of the blade, and said under planes form converging inclines above the outer face of the intermediate blade part and a consequent dovetail formation, Fig. 1<sup>a</sup>, adapted to receive the corresponding beveled edges *e'* of the bow-shank extension *e*, Figs. 6 and 7. The top faces of the said pressed parts *a b* at said adjacent edges are or may be ground off approximately parallel with the plane of the outer face of the blade, so that when the bow extension is inserted into the dovetail recess formed by such pressed parts the outer faces of such extension and of its holding parts will be practically flush and not liable to catch the hand, Fig. 7<sup>a</sup>.

In the construction represented in Figs. 2 and 2<sup>a</sup> the recess edges instead of being made continuous for their full length, as represented in Fig. 1, are made discontinuous by pressing parts *a b* through the blade, as aforesaid, but at shorter lengths and at distances apart, so as to make a plurality of bow-extension-holding recesses *c* in alinement, but not continuous.

In the construction represented in Figs. 3 and 3<sup>a</sup>, which otherwise agrees with that of Figs. 2 and 2<sup>a</sup>, the parts of the blade between the pressed-through parts *a b* are pressed or otherwise removed from the substance of the blade, so as not to remain between the bow-extension-holding parts *a b*.

In the construction represented in Figs. 4 and 4<sup>a</sup> the recess inner edge is formed as described with reference to Fig. 1 and the recess outer edge is formed by turning over onto the outer face of the blade a projecting edge *b<sup>3</sup>* (shown in dotted lines) and left when cutting out the blade and which may be previously ground or stamped to shape at its outer edge.

In the construction represented in Figs. 5 and 5<sup>a</sup> the recess inner edge is formed as described with reference to Fig. 2 and the recess outer edge is formed as described with reference to Fig. 4. The recess outer edge



when so formed may also be discontinuous or with a plurality of bow-extension-holding parts in alinement, but not continuous, as hereinbefore described with reference to the  
5 recess inner edge.

In the modifications represented in Figs. 1, 4, and 5 the blade parts intermediate of the recess parts *a b* may be removed from the blade, as in the modification represented in  
10 Fig. 3.

The bow-shank extension *e* is made with beveled edges *e'*, adapted to fit those of the blade - recess, and is slit longitudinally straightly, as at *e''*, or with a curvilinear or  
15 zigzag slit, so as to provide for a compressible and expansible action widthwise of the extension, which is effective in so increasing the frictional hold of the bow extension and blade as to dispense with the holding-screws hith-  
20 erto required. To attain this result, both the recess edges and the bow-extension edges may be made very slightly tapering, or the edges of the one part may slightly taper, while the edges of the other part may be parallel, so as  
25 to provide for a laterally-compressive action and a corresponding reaction while the parts are being forced home to the position indicated in Fig. 7 and while they retain such position.

30 Having now particularly described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A shear-blade, the body of which is slot-

ted to form tongues, the latter projecting outward from said body intermediate the side  
35 edges thereof, opposing each other and constituting jaws to engage a shank.

2. In a shear the combination of yieldable shanks, blades detachably connected thereto, the same being slotted to form tongues or pro-  
40 jections on the body intermediate the side edges thereof for engaging the shank.

3. In a shear the combination of yieldable shanks and detachable blades slotted intermediate the marginal edge thereof to form inter-  
45 gral projections on the body between the side edges of the blade to engage the shanks for connecting the same.

4. In a shear the combination of shanks bifurcated to form compressible sections, blades  
50 detachably connected thereto, said blades slotted to form projections on the body portions thereof for connecting the blades with the shanks.

5. In a shear the combination of yieldable  
55 shanks having beveled edges, blades detachably connected thereto, said blades slotted to form tongues on the body thereof and extending from the outer faces of the body for engaging the beveled edges of the shanks.  
60

In witness whereof I have hereunto set my hand in presence of two witnesses.

OTTO BÖRS.

Witnesses:

ROBT. F. DRURY,  
WILLIE PARISH.