(No Model.)

A. J. LYTLE.

SHEARS.

No. 260,035. Patented June 27, 1882.

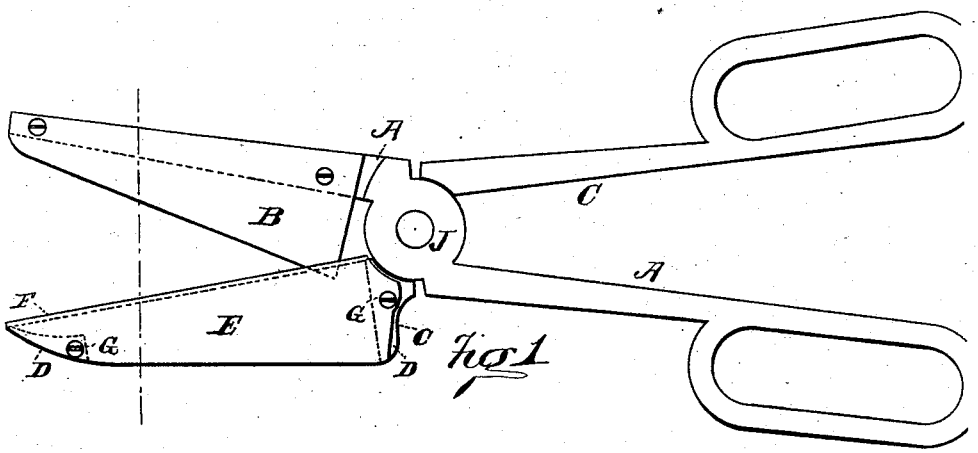


Fig 1

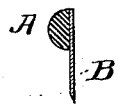
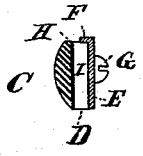


Fig 2



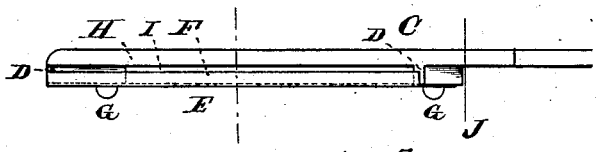


Fig 3

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UNITED STATES PATENT OFFICE.

ANDREW J. LYTLE, OF HILLSBOROUGH, OHIO.

SHEARS.

SPECIFICATION forming part of Letters Patent No. 260,035, dated June 27, 1882.

Application filed March 13, 1882. (No model.)

To all whom it may concern:

Be it known that I, ANDREW J. LYTLE, of Hillsborough, in the county of Highland and State of Ohio, have invented certain new and useful Improvements in Shears, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 is a side view of the shears; Fig. 2, a vertical section through the cutting parts, and Fig. 3 a plan of the lower jaw.

This invention pertains to cloth-cutting and similar shears having a penetrating-blade working into a slot, and relates to the form, position, and attachment of the blade forming the cutting side of the slot.

The two levers A and C are pivoted at J, as usual, and the upper lever-jaw has a cutting-blade, B, attached. This blade B is thin and keen, as shown in Fig. 2, and, being removable from the lever-jaw, is easily kept sharp. These shears in their action involve penetration rather than detrusion. The keen penetrating-blade B shears into a slot, I, formed in the lower jaw, A, one side of which is set higher than the other, as shown in Fig. 2 at F, and this higher surface is of hardened steel and brought to a keen corner.

The elevation of the surface F is not essential, but is found to aid the cutting action by permitting the separated goods to fall away slightly, and thus give more freedom to the cutting-blade B.

The slot I is formed by the jaw C on one side and by the bed-blade E on the other side, as shown. The bed-blade E is a piece of sheet-steel attached against the jaw C by screws G, or equivalent means, the space I between the plates being secured by space-blocks D, cast upon the side of jaw C into which the screws G are screwed. Loose space-blocks not integral with the jaw can of course be used.

The penetrating-blade B and bed-blade E are screwed against surfaces facing in the same direction. By this means, in the process of manufacture, the levers may be pivoted together and the seating-surfaces for the blades dressed at one operation.

In order to lighten and cheapen the bed-blade E without materially weakening it sidewise, I make it of very thin steel and strike it up in angle form, as shown in Fig. 2. By this means the actual surface against which the blade B may rub is much reduced and the corner can be more easily sharpened. This angle-bearing on the top of the space-blocks relieves the attaching-screws G of much of their strain.

The jaw C is of sufficient depth to form a safety-guard for the blade B when shut, and the bed-blade E is made of similar depth.

I claim as my invention—

1. In a shear having a penetrating-blade adapted to work into and cut against one side of a slot, the combination, with such blade, of an opposite jaw to form one side of the slot and a detachable bed-blade fixed alongside said jaw and set with its cutting-edge above the level of said jaw to form an opposite and higher side for said slot, substantially as and for the purpose set forth.

2. A shear-blade formed of sheet metal longitudinally bent into angle-section and adapted to shear across the thin edge of the metal, as set forth.

3. In a shear having a detachable blade formed of sheet metal bent longitudinally into angle-section, the combination, with such blade, of an attaching-surface arranged to bear against the inner surface of such blade, and also against the under surface of the horizontal part of such blade, whereby the horizontal support of the blade, by means of the angle, tends to relieve the screws or rivets from downward strain, as set forth.

ANDREW J. LYTLE.

Witnesses:
J. W. SEE,
JOHN LORENZ.