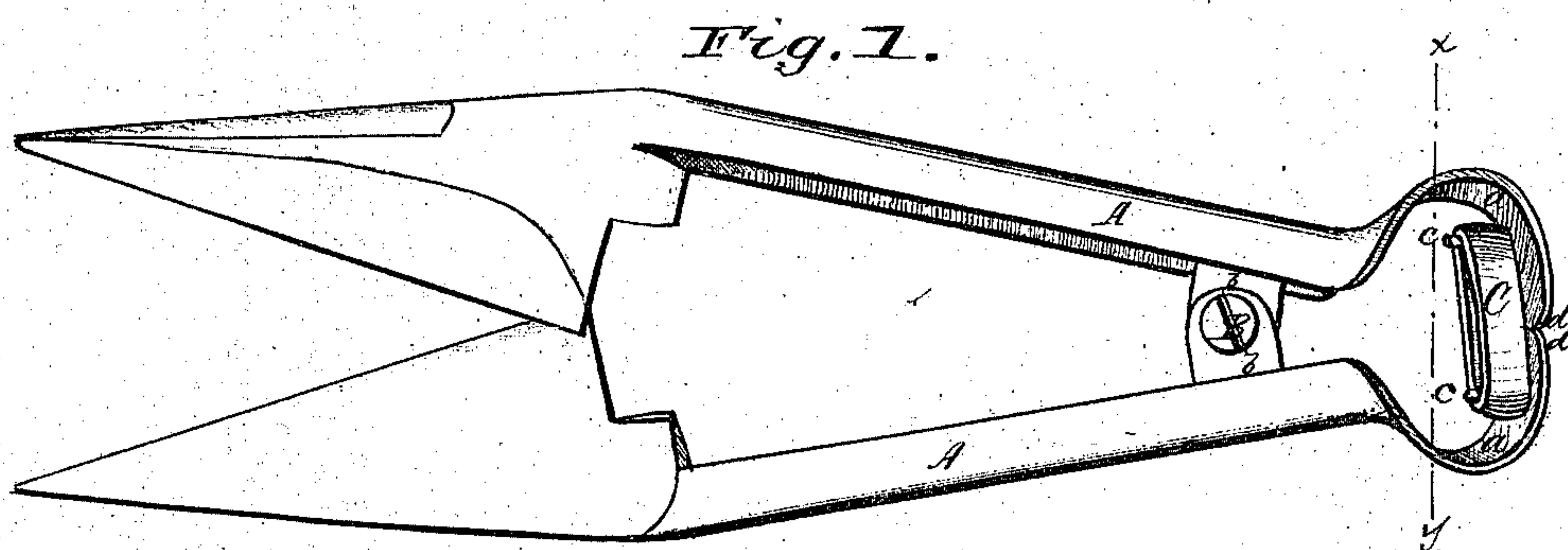
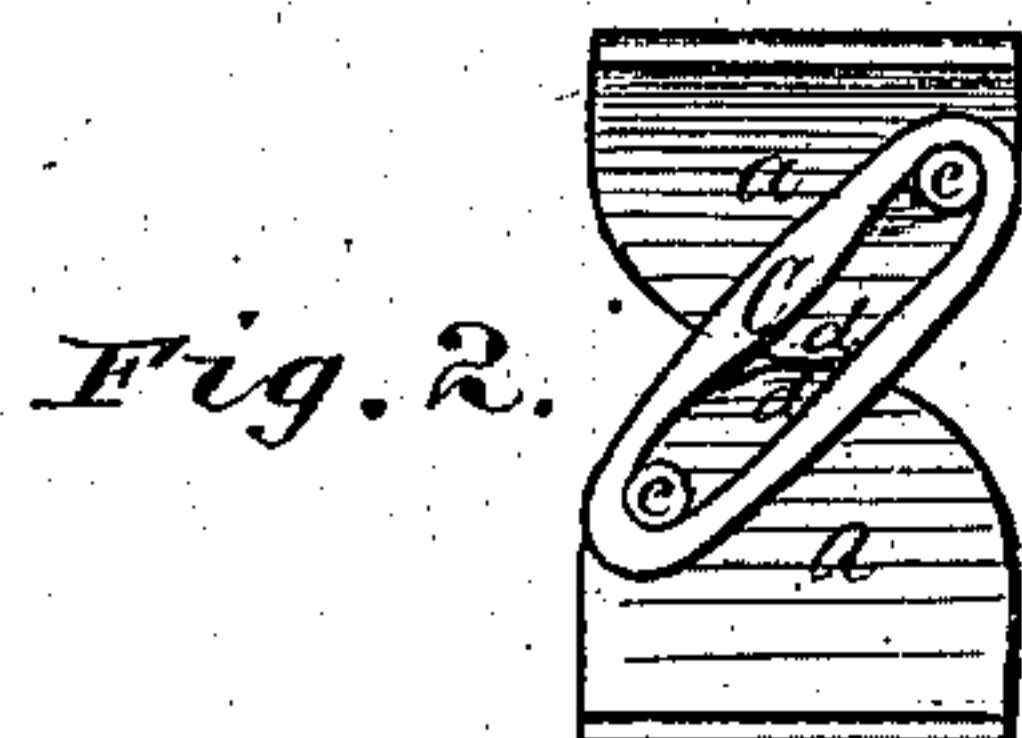


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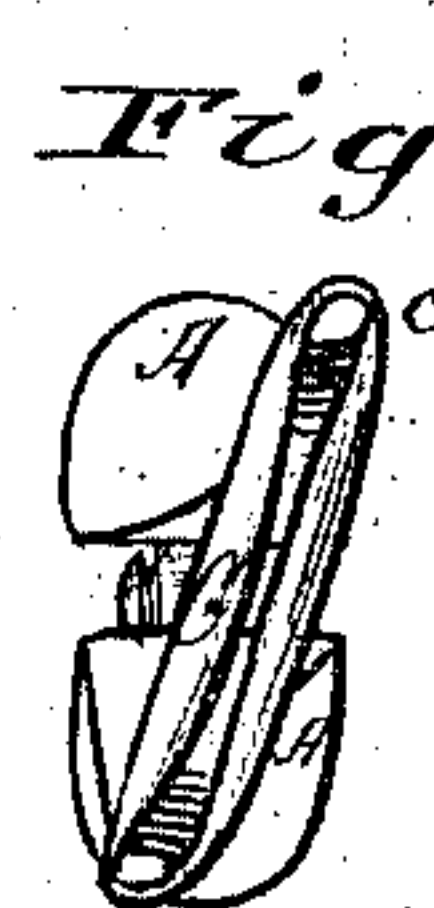
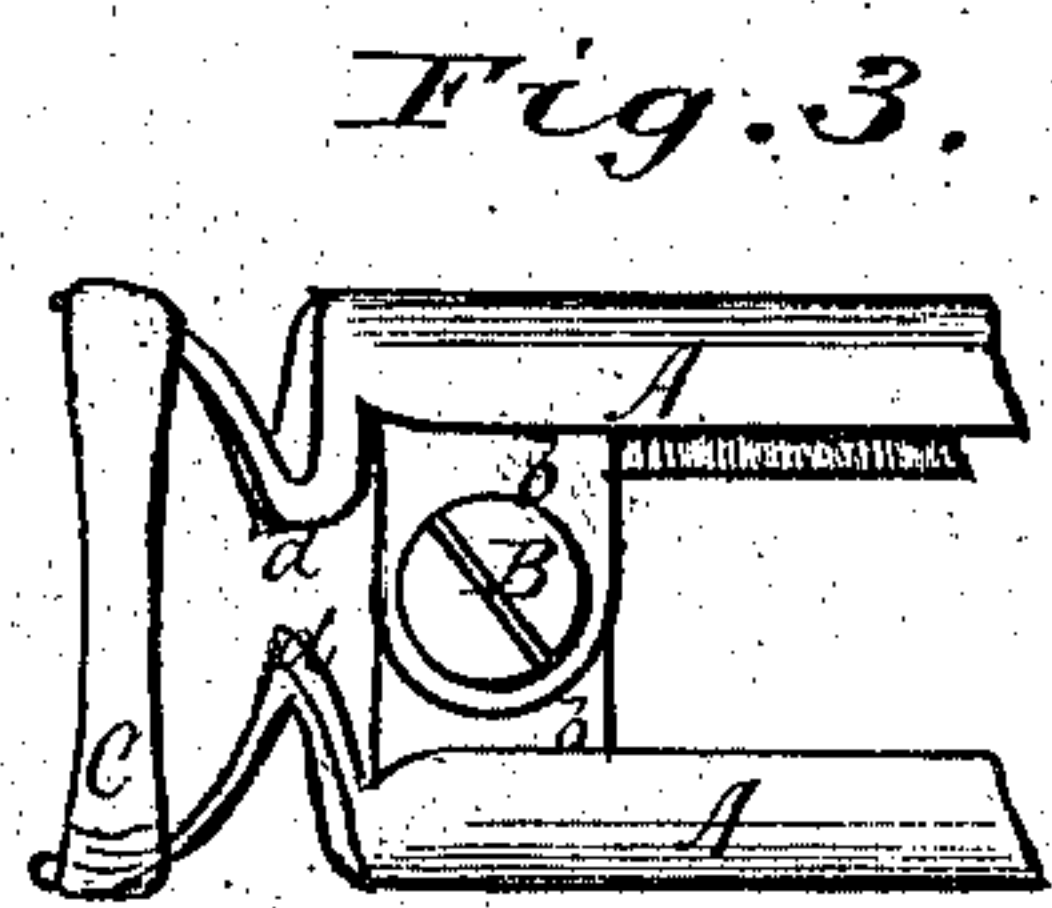
D. CAMPBELL.  
SHEEP SHEARS.

Patented July 26, 1870.



Witnesses { J. P. Stanford.  
                  Edward C. O'Brien

D. Campbell } Inventor  
By C. A. Emery atty



# United States Patent Office.

DANIEL CAMPBELL, OF ELIZABETH, NEW JERSEY, ASSIGNOR TO HENRY SEYMOUR & CO., OF NEW YORK CITY.

Letters Patent No. 105,639, dated July 26, 1870.

## IMPROVEMENT IN SHEEP-SHEARS.

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

I, DANIEL CAMPBELL, of Elizabeth, in the county of Union and State of New Jersey, have invented certain new and useful Improvements in Sheep-Shears, of which the following is a specification.

### *Nature and Objects of the Invention.*

The invention consists in a novel construction and arrangement of parts, of which the object is to lessen the liability of breakage or derangement, and lower the cost of production, as will be fully set forth.

### *Description of the Drawing.*

Figure 1 is a perspective view of my invention.

Figure 2 is a sectional view through line *x y*, fig. 1.

Figure 3 is a view of a portion of the handle of a pair of shears, showing an alternative of construction.

Figure 4 is a view of the right-hand side of fig. 3.

### *General Description.*

In the construction of most of this class of shears at the present time, the spring is formed of a steel bow, united to the ends of the handle.

This bow must necessarily be made of the best quality of steel, in order to give it the requisite toughness and elasticity; and the manufacture of the shears is rendered expensive, as well by the labor of shaping and properly tempering the spring, as by the cost of the steel required.

This principle of construction is also defective, because the spring which forms the connection between the two handles is, from its position, liable to become fractured by being accidentally dropped or receiving a sudden blow.

The manner in which I construct my improved shears enables me to overcome the imperfections and disadvantages above mentioned, while it materially reduces their cost of production.

In the drawing accompanying this specification—

*A A* represent the handles to which the cutting-blades are welded.

They are connected together by the screw *B*, which passes through the two lugs *b b*, and forms the joint upon which they turn.

The ends of the handles are bent into the curved shape shown in fig. 1, or the pieces *a a* may be made separately, and welded to the ends, so as to cover the rubber ring *C*, which forms the spring.

Each curved piece *a* is provided with a pin, *c*, around which the ring *C* is placed, so that the action of the spring tends to draw the bows *a a* together, and throw the cutting-blades apart.

The extent of motion of the blades is governed by the length of the bows *a a*, which, coming in contact with each other at *d d*, prevent the further operation of the spring.

The ends of the handles may be also formed into a shape similar to that shown in figs. 3 and 4, the ends *c c* being bent so as to hold and retain the rubber spring *C*, and the pins *c c* are placed so that the spring is held diagonally, and acts with a tendency to draw the cutting edges of the blades against each other.

### *Claims.*

1. The arrangement of the blades *A A*, arms *b b*, screw *B*, and spring *C*, constructed and operating substantially as described and set forth.

2. The arrangement of the blades *A A*, hinged together as described, spring *C*, and stops *d d*, constructed and operating substantially as set forth and specified.

3. Arranging the pins *c c* and spring *C* so that the cutting-surface of the blades shall always be kept in contact, substantially as described and set forth.

DANIEL CAMPBELL.

Witnesses:

JAMES M. HADDENS,  
MARTIN FALTER.