No. 881,578. PATENTED MAR. 10, 1908.

G. W. HASKINS.

CUTTING IMPLEMENT.

APPLICATION FILED OCT. 26, 1907.

Fig. 1.

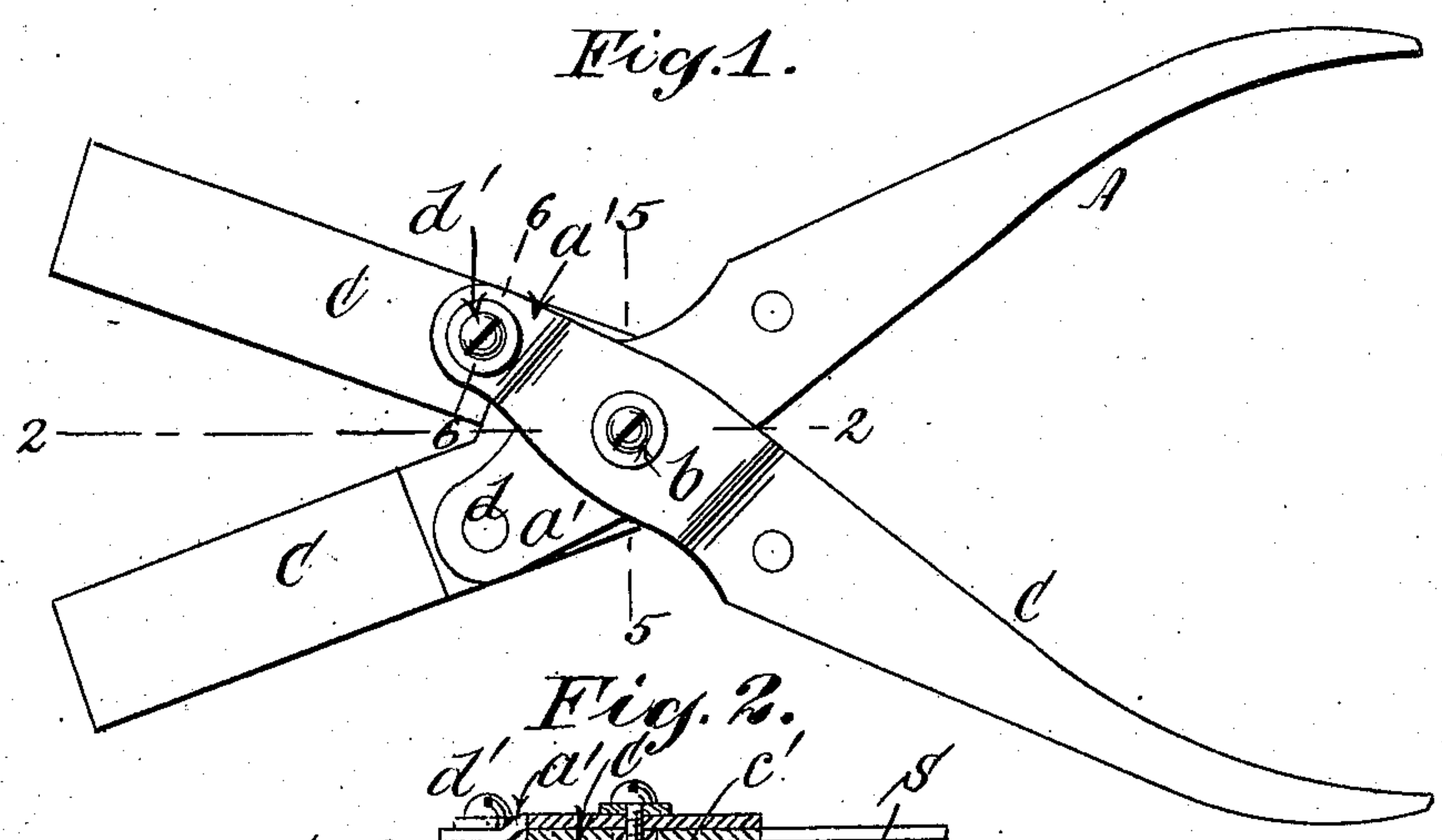


Fig. 2.

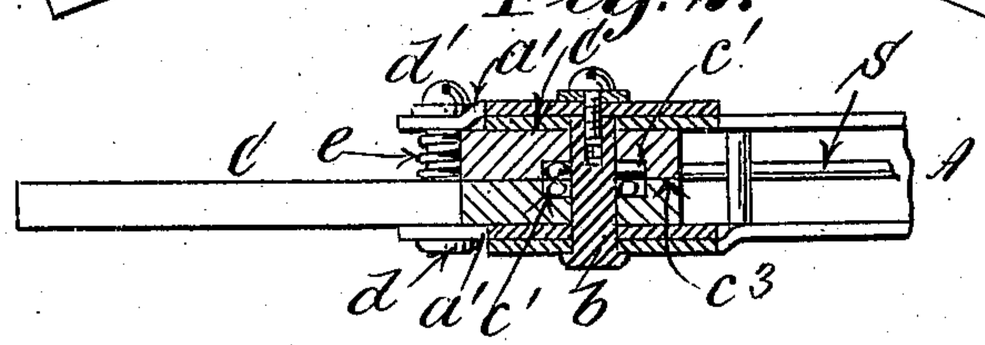


Fig. 3.

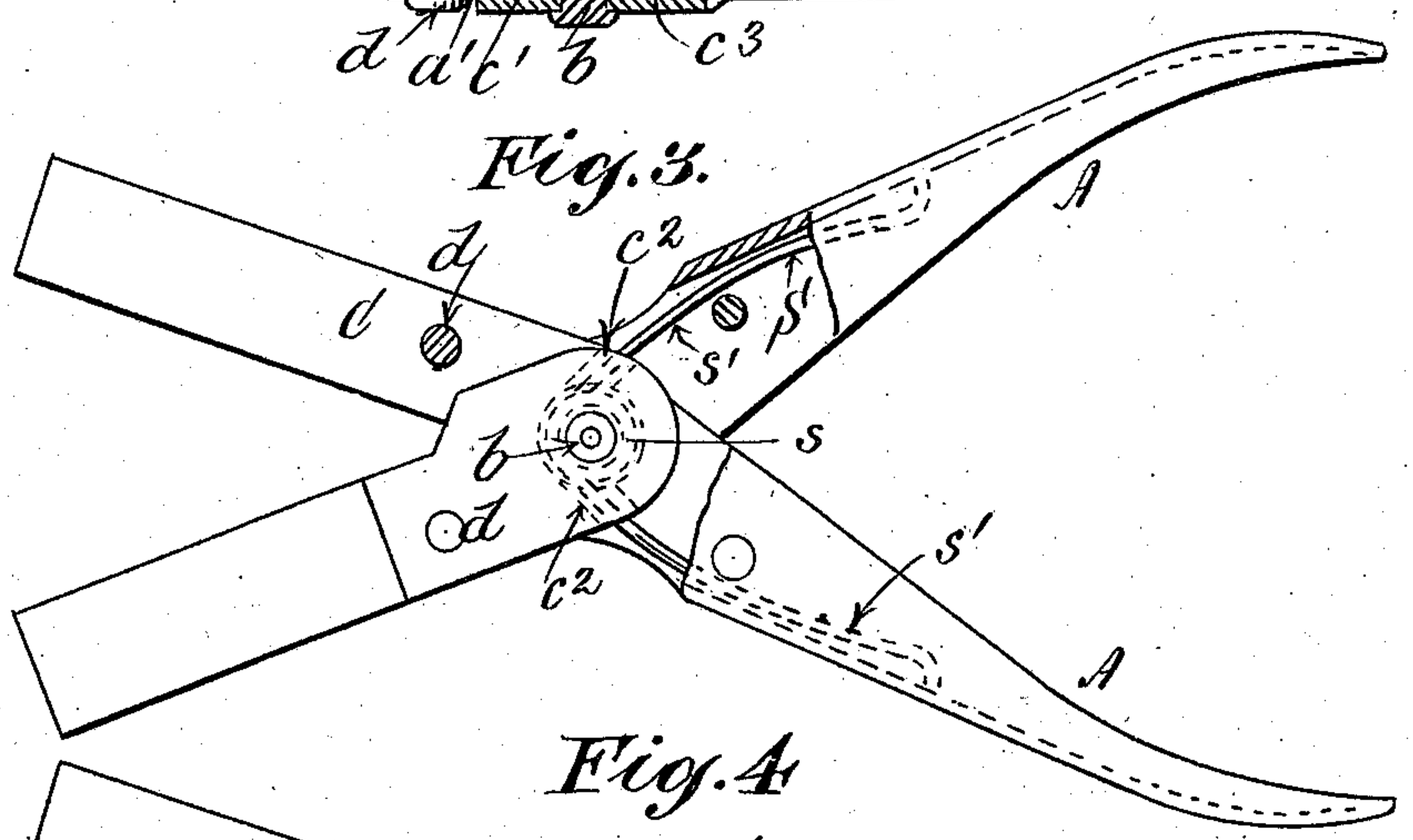


Fig. 4

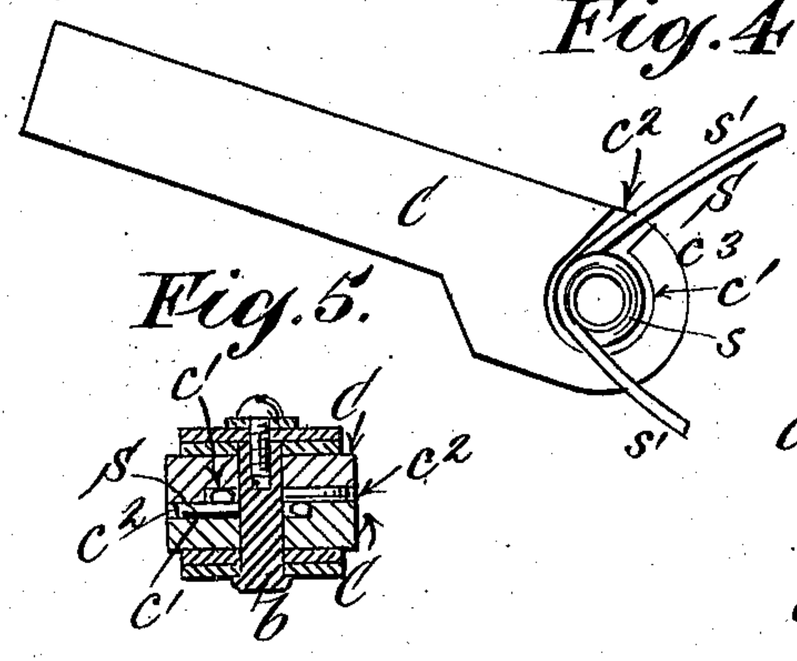
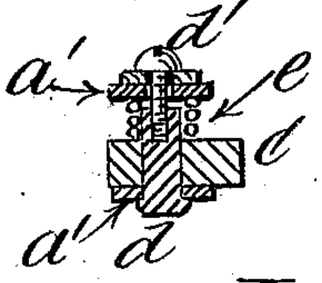


Fig. 5.

Fig. 6.



Witnesses:

D. W. Gardner.

Florence G. Garner

Inventor:

George W. Haskins

By his Attorney

Geo. W. Miatt

UNITED STATES PATENT OFFICE.

GEORGE W. HASKINS, OF NEW YORK, N. Y., ASSIGNOR TO ABBOT AUGUSTUS LOW, OF HORSESHOE, NEW YORK.

CUTTING IMPLEMENT.

No. 881,578. Specification of Letters Patent. Patented March 10, 1908.

Application filed October 26, 1907. Serial No. 399,375.

To all whom it may concern:

Be it known that I, GEORGE W. HASKINS, a citizen of the United States, residing in the city of New York, borough of Brooklyn, county of Kings, and State of New York, have invented certain new and useful Improvements in Cutting Implements, of which the following is a specification.

My improvements relate to cutting implements for hand use such as pliers, shears and the like, in which it is desired to have the jaws open automatically when released.

While my invention is applicable to various articles of the character designated, I have shown and described it herein as applied to shears in which the cutting edges overlap and pass each other.

The invention consists in the construction and arrangement of parts hereinafter described and claimed specifically.

In the accompanying drawings, Figure 1, is an elevation of my improved cutting device; Fig. 2, a section upon plane of line 2—2— Fig. 1; Fig. 3, an elevation similar to Fig. 1, showing portions of the handles broken away; Fig. 4, an elevation of the inner side of one of the cutter blades; Fig. 5, a section upon plane of line 5—5— Fig. 1; Fig. 6, a section upon plane of line 6—6— Fig. 1.

A, A, are hollow handles stamped out of sheet metal and having bifurcated inner ends. These handles are of well known construction and form no part of my invention. They are connected by a central pivot *b*, and have extensions *a'*, beyond this pivot.

C, C, are cutter blades fulcrumed on the pivot *b*, and secured to the extensions *a'*, of the handle A, by means of pins *d*, and screws *d'*. The forward extensions *a'*, and the blades C are formed with coinciding holes for the reception of the pins *d*, and shanks of the screws *d'*, which engage with female threads in the end of the pin as will be understood by reference to Fig. 6. Washers are interposed between the heads of the pins *d*, and the heads of the screws *d'*, and the opposed outer surfaces of the handle extensions *a'*, and springs *e*, are interposed between the opposed inner surfaces of the said extensions *a'* and the blade C.

By reference to said Fig. 6, it will be seen that the pins *d*, are of such length that a space is left between their inner ends and the inner face of the forward handle extension *a'*. This admits of the screw being used to regulate the tension exerted by the extensions *a'*, against the blade C. That is to say by tightening or loosening the screws *d'*, the resilience of the extensions *a'*, may be utilized to increase or diminish the pressure exerted by them against their blades C. The springs *e*, tend to equalize and distribute the pressure.

The jaws and handles are held apart normally by the spring S. This spring S consists of a single convolution *s*, with rear arms or extensions *s'*, which project backward into the hollow handles. The convolutions of the spring rests in and between annular grooves *c'*, *c'*, formed in the opposed inner surfaces of the cutter blades C. The grooves *c'*, coinciding and forming together an annular recess around the pivot *b*. The arms *s'*, *s'*, of the spring S extend through tangential grooves c^2, formed for them in the inner surfaces of the cutter blades as shown in dotted lines in Fig. 3, and in full lines in Fig. 4,—it being understood that the cutting blades are duplicates of each other in every particular.

It will be seen that by this construction the blades reinforce and support each other fully at the rear of the pivot by reason of the contact of the annular walls c^3, of the grooves *c'*, with each other, so that there can be no wabbling or looseness of the blades with relation to each other while at the same time ample provision is made for the free articulation of the parts and the spring S. The spring S is thus practically countersunk, hidden and protected without impairing the strength or alinement of the cutting blades, resulting in a neat, compact and effective structure as a whole.

What I claim as my invention and desire to secure by Letters Patent is,

In an implement of the character designated, the combination of the hollow handles, cutter blades attached thereto and formed with annular grooves in their opposed surface concentric to the pivot upon which the cutters are fulcrumed, with tangential grooves extending from said annular grooves, said fulcrum pivot, a spring having a convolution resting in the annular recess formed by and between said grooves and extending through the tangential grooves and projecting into the hollow handles, said

cutting blades and bifurcated handles being also formed with coinciding perforations, male and female screws extending through said coinciding perforations and engaging with each other, and coiled springs around said screws and interposed between the inner sides of the cutting blades and the opposed surfaces of the bifurcated handles, for the purpose described.

GEORGE W. HASKINS.

Witnesses:
D. W. GARDNER,
GEO. WM. MIATT.