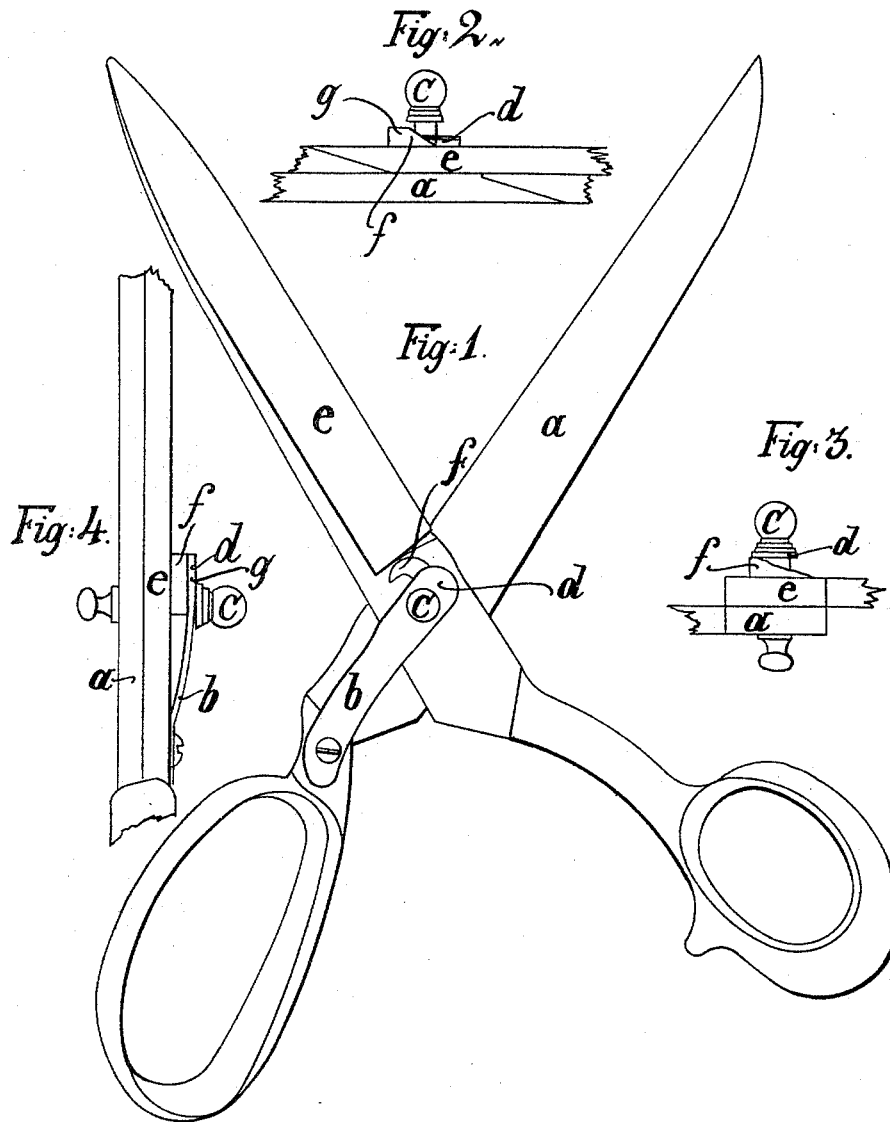


(No Model.)

W. FISCHER.  
SHEARS.

No. 491,679.

Patented Feb. 14, 1893.



Witnesses:  
Carl Reibach  
& Kaiser.

Inventor:  
Walther Fischer  
by Robert Stepler  
Attorney

# UNITED STATES PATENT OFFICE.

WALTHER FISCHER, OF SOLINGEN, GERMANY.

## SHEARS.

SPECIFICATION forming part of Letters Patent No. 491,679, dated February 14, 1893.

Application filed August 30, 1892. Serial No. 444,572. (No model.)

*To all whom it may concern:*

Be it known that I, WALTHER FISCHER, a subject of the King of Prussia, German Emperor, and a resident of Solingen, in the Province of the Rhine, Kingdom of Prussia, German Empire, have invented new and useful Improvements in Shears, Scissors, and the Like, of which the following is an exact specification.

My invention relates to a novel device for keeping the blades of shears and similar instruments in perfect contact with each other by means of a spring, and consists in suitable means for pressing the blades together with a gradually increasing force as the shears are brought from the full open into the closed position.

In order to disclose my invention more fully, I will proceed to describe the same specifically by the aid of the accompanying drawings, in which like letters refer to like parts throughout the several views, and in which:

Figure 1 is a plan view of my improved shears in the opened position. Fig. 2 is a front elevation of the middle part of the same. Fig. 3 is a similar view of the same in the closed state, and Fig. 4 a corresponding side elevation.

To the lower blade *a* there is screwed a spring *b*, which fits with an eye over the end of the pin *c*, being the pivot around which the blades may turn. The spring *b* is provided with an elongation *d*. The upper blade *e* is furnished with an inclined offset *f* lying in the path of the elongation *d* and preferably formed with a level surface *g* at its highest point.

The operation of the device is the follow-

ing: When the blades are in the open, divergent position (Figs. 1 and 2), the spring *b* lies with its end *d* directly on the upper face of the blade *e*. Now when closing the blades, the elongation *d* of the spring *b* will glide upon the inclined surface *f*, and thus the tension of the spring will increase gradually. It will be obvious, therefore, that by giving the incline *f* the requisite shape, the force pressing the blades together at the place of the cut will be a constant one; thus it will be seen that the fabric will be cut easily and uniformly from one end of the cut to the other. When the blades are completely closed, the elongation *d* of the spring *b* rests on the level surface *g* of the inclined offset *f*. The tension of the spring *b* *d* is therefore greatest when the blades are in their closed position, that is to say, at the end of the cut.

Having thus fully described the nature of my invention, what I desire to secure by Letters Patent of the United States is:—

A device for pressing the blades of shears, scissors and similar instruments against each other with an increasing pressure during the closing movement, consisting in the combination, with the lower blade *a* and the spring *b* screwed to the same, and having an elongation *d*, of the pin *c*, and the upper blade *e*, having an inclined offset *f* in the path of travel of the elongation *d*, for the purpose set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

WALTHER FISCHER.

Witnesses:

RUDOLPH FRICKE,  
WM. ESSENWEIN.