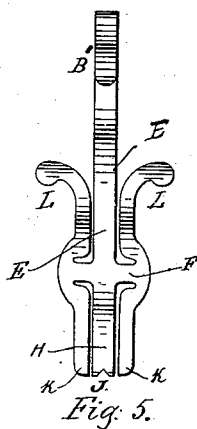
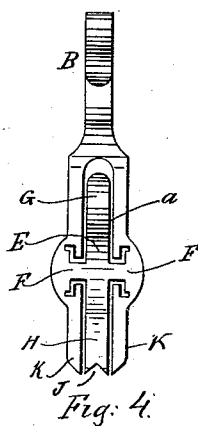
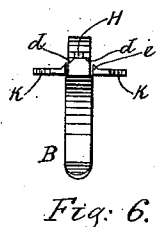
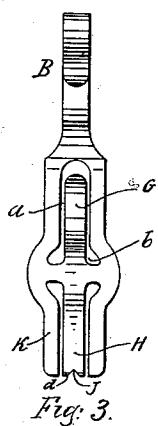
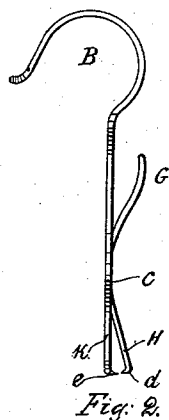
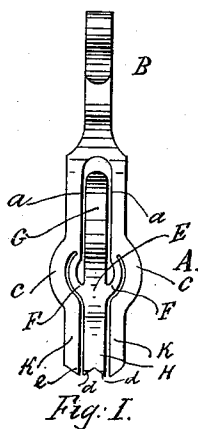


(No Model.)

G. W. LIEB.
SPRING CLIP.

No. 537,120.

Patented Apr. 9, 1895.



Witnesses
D. Bogdanoff
S. Petri-Palmer.

G. W. Lieb Inventor
By his Attorney
Oscar F. Tunn

UNITED STATES PATENT OFFICE.

GEORGE WM. LIEB, OF NEWARK, NEW JERSEY, ASSIGNOR OF ONE-HALF TO
GEORGE E. HANSER, OF SAME PLACE.

SPRING-CLIP.

SPECIFICATION forming part of Letters Patent No. 537,120, dated April 9, 1895.

Application filed December 13, 1894. Serial No. 531,636. (No model.)

To all whom it may concern:

Be it known that I, GEORGE WM. LIEB, a citizen of the United States, and a resident of Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Spring-Clips, of which the following is a specification.

This invention relates to improvements in spring clips for holding sheets of paper, sheet music and other articles and suspending them from rods or brackets, which clips are known as window hooks.

The object of my invention is to provide a spring clip which is simple in construction, strong and durable, can easily be applied or removed and which is handsome in appearance.

The invention consists in a spring clip made of a single and continuous piece of, spring sheet metal, provided at its upper end with a suspension hook and also provided with a longitudinal central tongue, connected with the body of the clip at its center by two spring arms made integral with said tongue and with the body of the clip.

The invention also consists in the construction and combination of parts and details as will be fully described and set forth hereinafter and finally pointed out in the claims.

In the accompanying drawings forming a part of this specification and in which like letters of reference indicate like parts in all the views, Figure 1 is a face view of my improved spring clip. Fig. 2 is a side view of the same. Figs. 3, 4 and 5 are face views of modified constructions of the same. Fig. 6 is an end view of the clip opened.

The improved spring clip A is made of sheet spring brass or if desired of thin sheet steel, brass being preferred.

A blank is cut out of the sheet metal of the general shape of the clip and provided at its top with a prong of less width than the clip proper and which is bent to form a rounded hook B so as to permit of hanging the clip on a rod such as are usually used in show windows and stores for displaying wares.

The clip is provided at about its center with a lateral enlargement C at both side edges.

The blank is provided with two longitudinal slits *a* which extend from the lower end to the lateral extensions and again from the same to near the lower end of the hook B where they are united so as to form a tongue E which extends from the lower end of the clip to near the bottom of the hook B which tongue is only connected with the body of the clip at about the center of its length, by two side arms F which are made integral with the body and the said tongue.

The two arms F may have the shape of arcs of a circle as shown in Fig. 1 or may form a cross with the tongue as shown in Figs. 3 and 5 or they may be approximately T shaped as shown in Fig. 4.

As shown in Fig. 3 the metal of the blank can be cut away at the corners of the cross as at *b*.

The inner end of the tongue E is bent outward as shown in Fig. 2 to form the finger lever or handle G and the lower end of the tongue is also bent outward to form the gripping prong H.

The free end of the gripping prong is provided with a notch J forming the two teeth *d* which are bent toward the adjacent faces of the two gripping prongs K on the body which gripping prongs have their ends bent over toward the prong H to form the teeth *e*.

The arms F are the fulcrums on which the tongue E turns and are also the springs that serve to press the prong H toward the prongs K, said arms acting as torsion springs as they are twisted torsionally by pressing the finger lever or handle G of the tongue E toward the body of the clip. In the construction shown in Fig. 5 the hook B' is formed on the end of the tongue E and the body of the clip is shaped to have two side wings L but otherwise the construction is the same as that shown in the other figures.

To hold the edge of a sheet of paper, of a pocket handkerchief, scarf or other article the prongs H and K are first separated by pressing the upper end G of the tongue E toward the body of the clip and then the said article is inserted between the prongs H and K which have been separated and as soon as the

tongue E is released the spring tension in the arms F presses the prong H toward the prongs K whereby the said sheet or other article is gripped firmly by the teeth double and held
5 securely.

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

1. A spring clip made of a single and continuous piece of spring sheet metal and provided with a suspension hook and with two gripping jaws and with a tongue also having a gripping prong, which tongue is connected with the body of the clip by two spring arms,
10 made integral with said body and tongue, substantially as herein shown and described.

2. A spring clip made of a single and continuous piece of spring sheet metal and having a suspension hook and a longitudinal central tongue connected at its center with the
20 body of the clip by two spring arms made integral with the said body of the clip and the tongue, the two ends of said tongue being

bent from the body of the clip, substantially as herein shown and described.

3. A spring clip made of a single and continuous piece of spring sheet metal and having a central tongue connected at its center with the body of the clip by spring arms, made integral with said tongue and the body of the
25 clip, the ends of said tongue being bent from the body of the clip and the lower end of said tongue and the adjacent ends of two prongs, formed on the body, being provided with teeth
30 projecting toward each other and a hook formed on the upper end of the clip and also made integral with the other parts, substantially as herein shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 1st day of December, 1894.

GEO. WM. LIEB.

Witnesses:

G. E. HANSER,
CHAS. F. BAUER.