

(No Model.)

J. BROWN.  
TRIMMING.

No. 583,785.

Patented June 1, 1897.

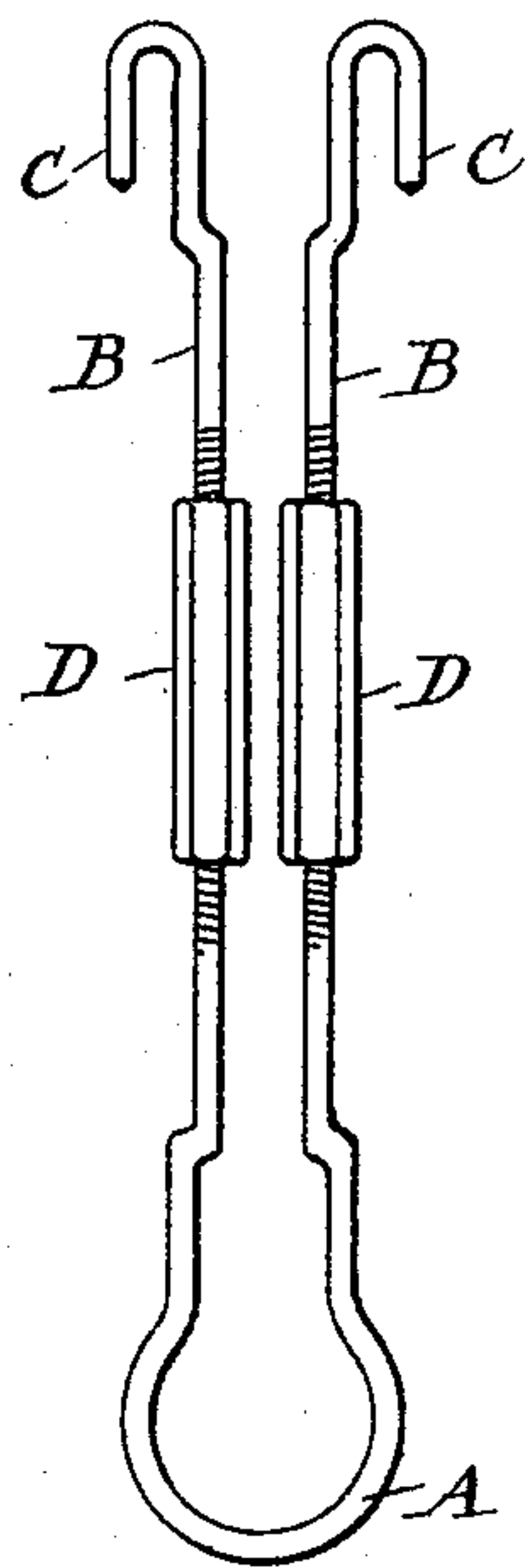


Fig. 1.

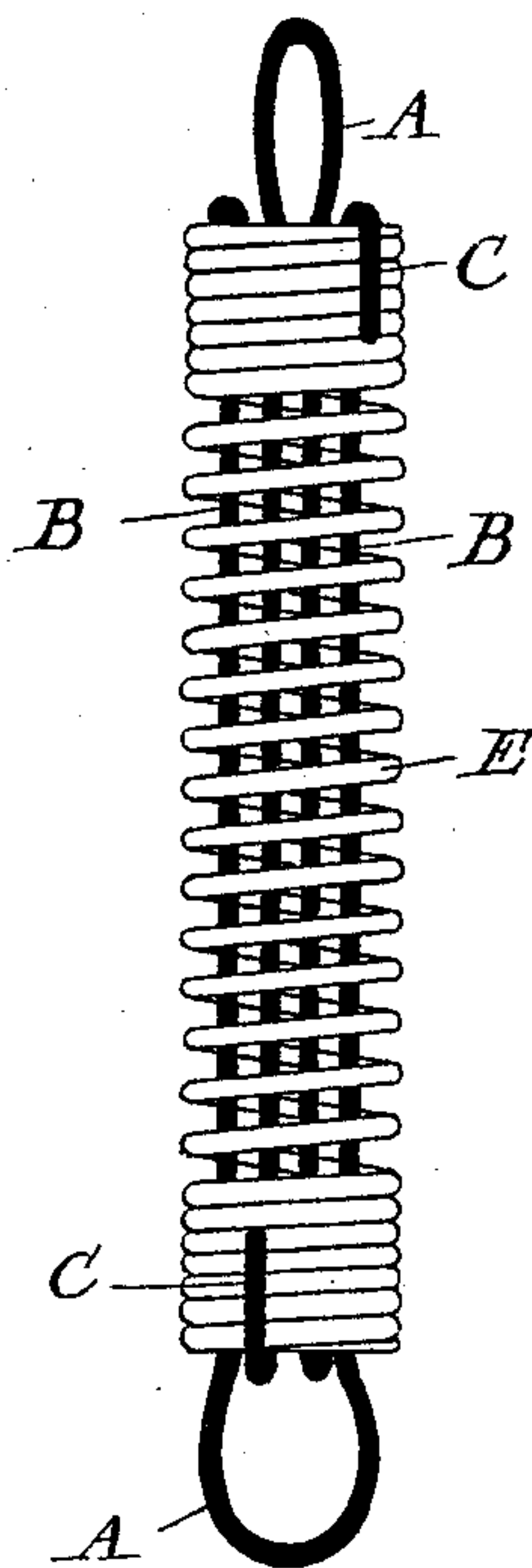


Fig. 2. BY

WITNESSES.

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INVENTOR.

*J. Brown.*

*Mumf*

ATTORNEYS

# UNITED STATES PATENT OFFICE.

JAMES BROWN, OF CARLTON, VICTORIA, ASSIGNOR OF THREE-FOURTHS TO JOHN BOYLE, OF SAME PLACE, JOHN DAVIES, OF MELBOURNE, AND HENRY FRANKLIN HYSLOP, OF ST. KILDA, VICTORIA.

## TRIMMING.

SPECIFICATION forming part of Letters Patent No. 583,785, dated June 1, 1897.

Application filed June 12, 1896. Serial No. 595,359. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES BROWN, hardware dealer, a subject of the Queen of Great Britain and Ireland, and a resident of 147 Elgin Street, Carlton, in the county of Bourke and Colony of Victoria, have invented an Improved Attachment for Connecting Spiral Springs to the Articles between which they are Placed, (provisional protection being granted in Victoria, No. 13,046, dated April 23, 1896,) of which the following is a specification.

The object of my invention is to provide an improved attachment whereby spiral springs may (without a hook or ring being formed on them) be more economically and conveniently connected to the articles to which they are attached. The said attachment may also be adjustable laterally. Hitherto it has been the practice when a spring in tension was connected between two points to bend the ends of the spring in the form of a loop or hook, or pieces of metal have been cast or burned round the spring ends, or various other comparatively expensive methods or devices have been adopted, which were objectionable on account of their cost; but with my invention the labor involved is practically *nil*, since the spring ends beyond the cutting off require no preparation at all. No dressing, flattening, or bending of any description whatever is requisite on the outside coils of the spring, and a ragged or uneven end is immaterial.

My invention, which is applicable to spiral, helical, or conical springs, the metal forming which may be of any section, consists in placing within the coils one or two lengths of metal bent in the middle and somewhat resembling the letter U. This length of metal (hereinafter called the "U attachment") may be of any section and is adjustable in its length.

Referring to the drawings, which form part of this specification, Figure 1 represents the U attachment with inwardly-stepped divided legs, which are adjustable laterally by nuts containing a right and left handed thread. This is entered similarly to the method described in Fig. 2. Fig. 2 shows an elevation of the spring with the U attachments in place. The spring is ready for use, and the attachments are shown in thick black lines.

Similar letters of reference indicate similar or corresponding parts where they occur in the views.

On further reference to the drawings it will be seen that A is the tug-hold, which is formed by the bent or rounded portion of the attachment uniting the two legs B. At the end of the legs the metal forming them is bent over in the form of a hook, as C, hereinafter called the "leg-hold."

The adjustment of the length of the legs is effected, as shown, by nuts D, which have a right and left handed thread within them and connect legs which have been stepped inwardly, as shown in the drawings.

With an ordinary spiral spring having a tug-hold at each end no difficulty whatever is experienced in entering the four legs into the spring, and by making the tug-holds larger in diameter than the interior of the spring the attachments are practically locked within the same. They can be removed, however, by compressing the spring along the line of its axis, by which operation the leg-holds are released. When this is done, the legs can be closed together by the fingers of the left hand and the attachments (one at a time) drawn out of the spring by the left.

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

The combination with a spiral spring of attachments extended through from opposite ends of the spring, each attachment comprising a rod turned to form two substantially parallel leg portions and a ring portion projecting from one end of the spring, each leg being provided with a hook end engaging directly with the end coil of the spring, each of said legs consisting of two sections screw-threaded at their adjacent ends, and nuts engaging therewith whereby the legs may be adjusted longitudinally, substantially as specified.

In witness whereof I have hereunto set my hand in presence of two witnesses.

JAMES BROWN.

Witnesses:

EDWIN PHILLIPS,  
CECIL WOODS LE PLASTEUR.