

No. 711,513.

Patented Oct. 21, 1902.

S. G. MACMILLAN.
CLOTHES PIN.

(Application filed Mar. 7, 1902.)

(No Model.)

Fig. 1.

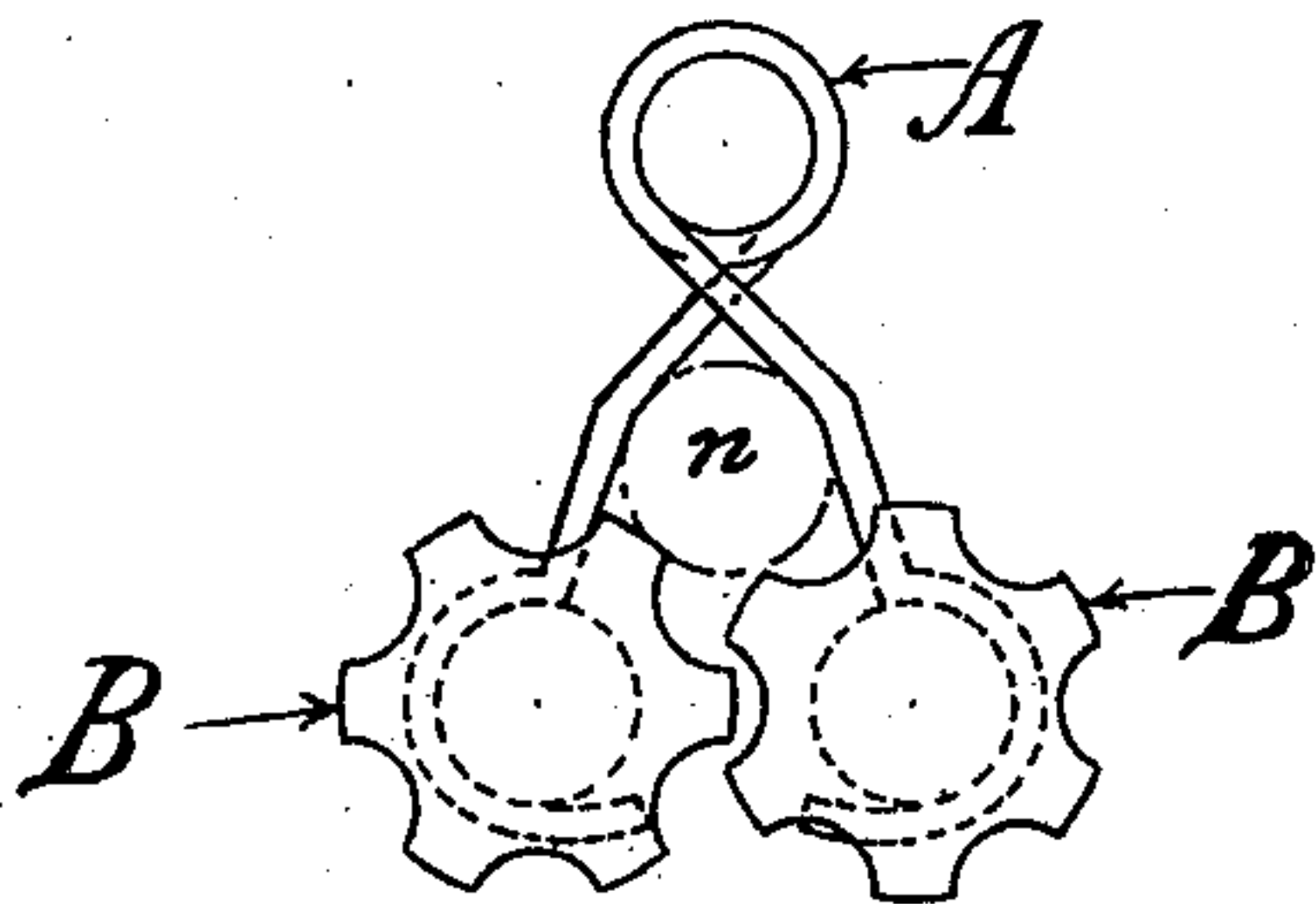


Fig. 2.

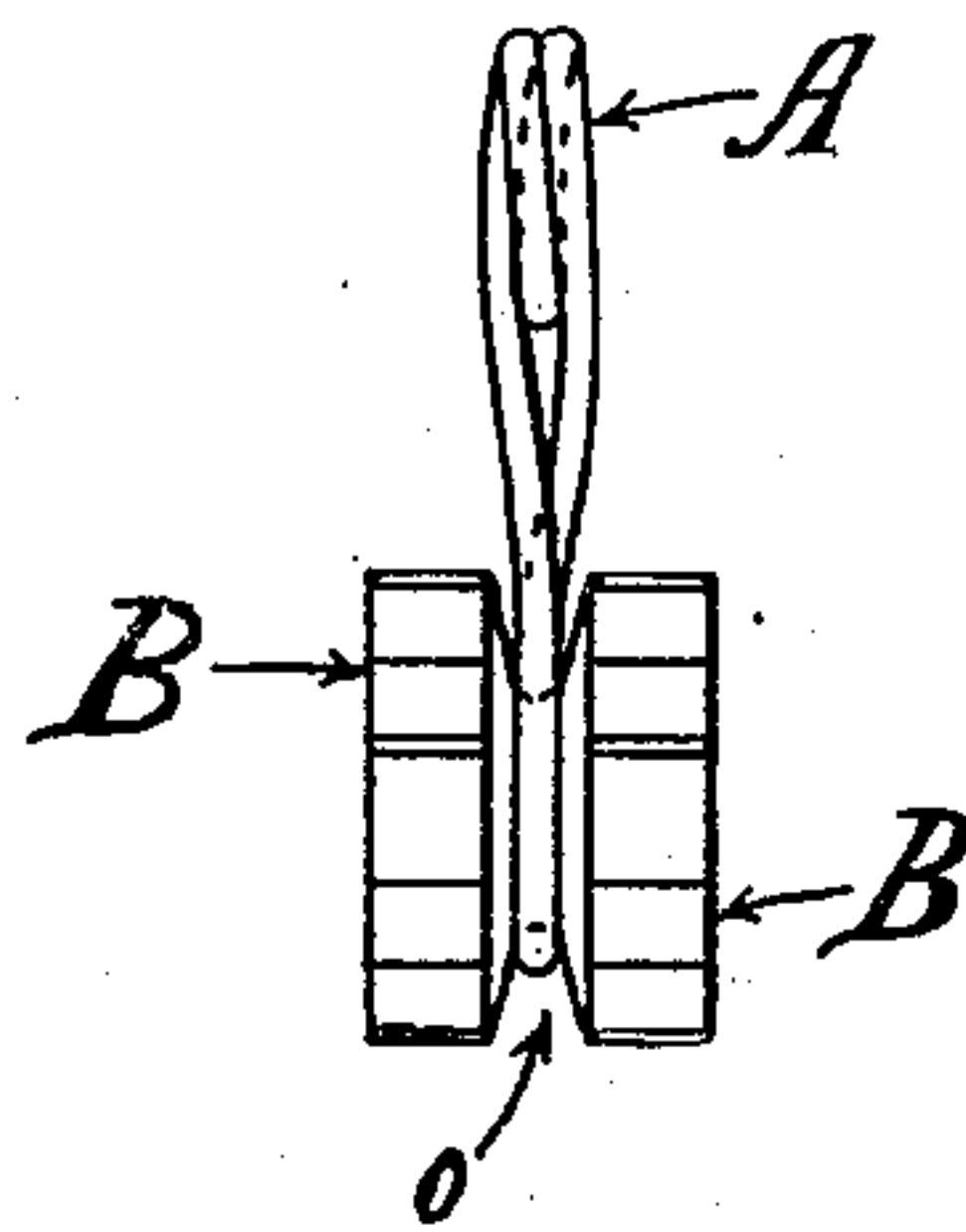


Fig. 3.

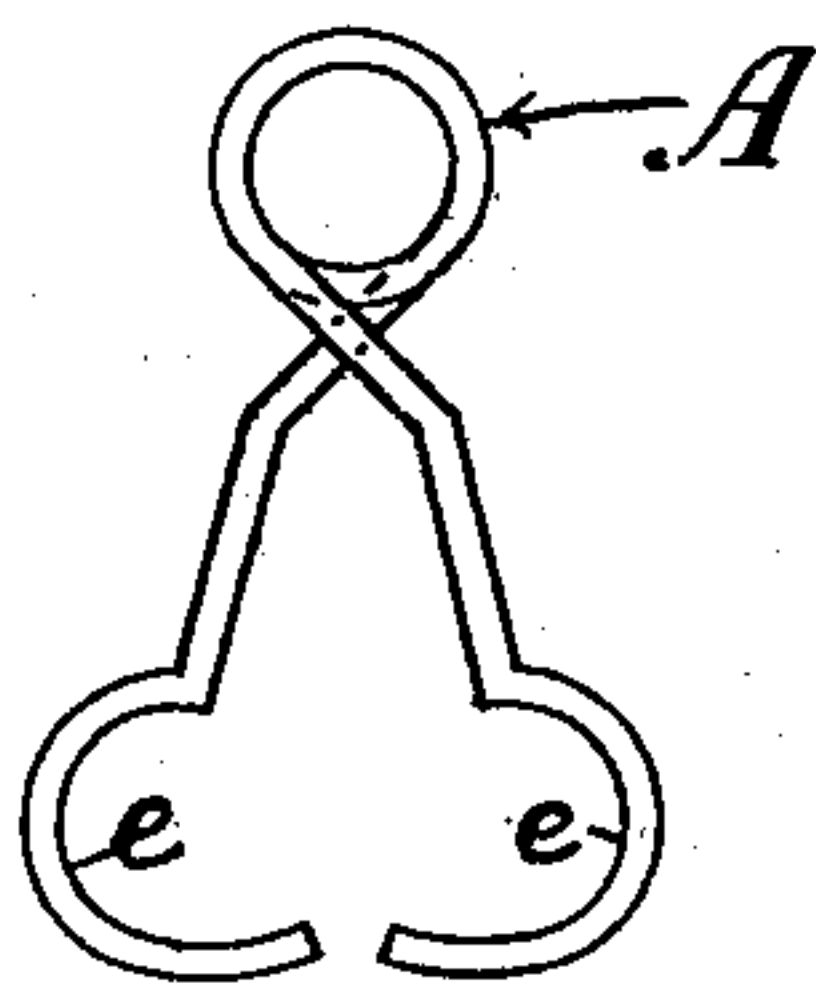


Fig. 5.

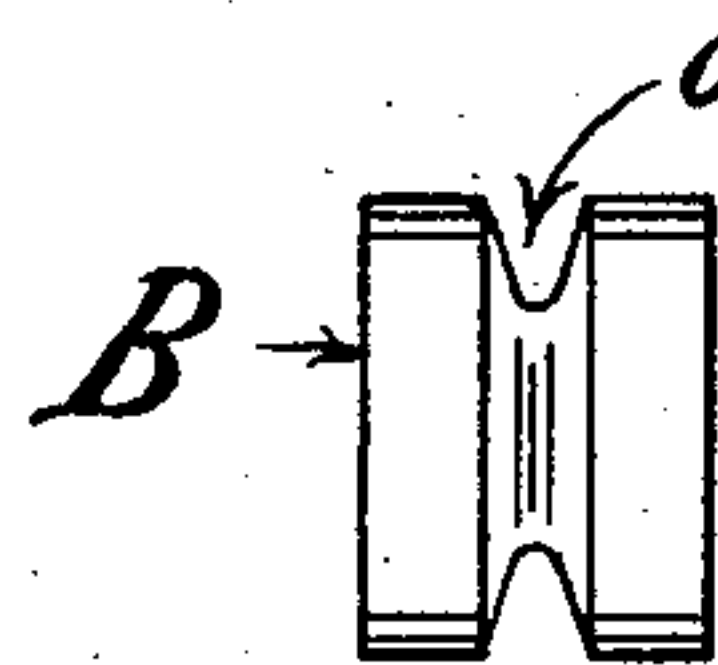
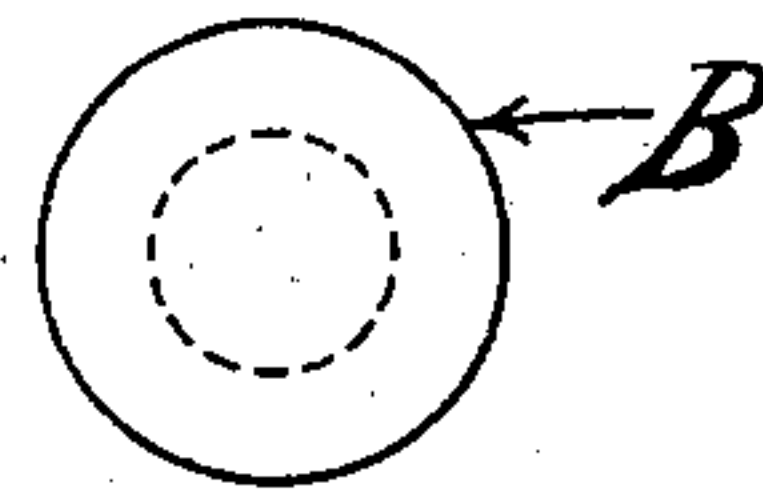


Fig. 4.



Inventor.

Simpson G. Mac Millan

per

Geo. J. Mosher

Attorney.

Witnesses.

Lucinda Mosher
P. F. MORTARTY

UNITED STATES PATENT OFFICE.

SIMPSON G. MACMILLAN, OF BROOKFIELD, CANADA.

CLOTHES-PIN.

SPECIFICATION forming part of Letters Patent No. 711,513, dated October 21, 1902.

Application filed March 7, 1902. Serial No. 97,120. (No model.)

To all whom it may concern:

Be it known that I, SIMPSON G. MACMILLAN, a British subject, residing at Brookfield, in the county of Colchester, in the Province of Nova Scotia and Dominion of Canada, have invented a new and useful Clothes-Pin, of which the following is a specification.

My invention relates to that class of clothes-pins usually made of wire coiled to form a spring with the ends of the wire extending below the coil and carrying rollers, so that one will oppose the other and securely clasp between them the clothes-line and clothes placed thereon; and the object of my invention is to provide an inexpensive clothes-pin and one in which all the pressure exerted will be in the plane of the longitudinal center of the clamping-rollers and the eye or coil of the spring. I attain this object by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is an elevation of the clothes-pin looking at the ends of the clamping-rollers and into the eye of the spring. Fig. 2 is an elevation of the same looking at the side of the rollers. Fig. 3 is an elevation of the spring detached from the rollers. Fig. 4 is an end view of a roller detached from the spring. Fig. 5 is a side view of the same.

Similar letters refer to similar parts throughout the several views.

In the drawings, A is a spring formed of a continuous wire, the center being coiled sufficiently to give it proper elasticity, and on each end of the wire is formed a circular loop or bearing *e*, in which the rollers revolve, the ends of the wire being carried beyond the semicircle of the loop in an upward curve that will allow space for the rollers to enter and rest in the bearings and prevent them from getting out of place while the pin is being removed from the line.

B B are the clamping-rollers, which have an annular groove *o*, with its sides converging toward each other turned out around them on the center of their perimeters or length, the bottom of said groove forming the receptacle for the bearing *e* of the spring A,

in which they revolve when being attached to or removed from the line.

In this clothes-pin no troublesome or expensive fastening in the shape of washers, sharp bends, soldering, or other devices is needed. The ends of the spring are simply sprung apart to admit the rollers one at a time to their bearings *e e*. This method of securing the rollers brings the pressure exerted in the plane of the longitudinal center of the roller and the eye or coil of the spring, and in addition to being much more practicable and cheaper in construction the weakness and damaging effects of torsional strain which are ineradicable in other methods of attachment are obviated. In my clothes-pin the ends of the wire after leaving the coil cross each other, forming an acute angle, and the length of the wire from the center of the coil to the center of the bearings and the size of the rollers are so proportioned that the clothes-line will be clamped and held between the rollers and the angle of the crossed wires, as shown at *n* in Fig. 1.

I am aware that clothes-pins have been made from a coiled wire with its extremities passing through the center of the rollers and forming the axis on which they revolve. I therefore do not broadly claim a clothes-pin comprising a coiled spring with attached rollers; but

What I do claim, and desire to secure by Letters Patent, is—

A clothes-pin formed of a coiled-wire spring having its ends crossed and its extremities bent so as to form circular bearings lying in the same plane, in combination with rollers having annular longitudinally-central grooves, corresponding to said bearings; substantially as shown and for the purpose specified.

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

SIMPSON G. MACMILLAN.

Witnesses:

HUGH MACKENZIE,

WILLIAM M. FERGUSON.