C. B. SIMMONS.

PAPER CLIP OR CLASP.

APPLICATION FILED DEC. 18, 1907. RENEWED DEC. 28, 1908.

912,191. Patented Feb. 9, 1909.

Fig. 1.

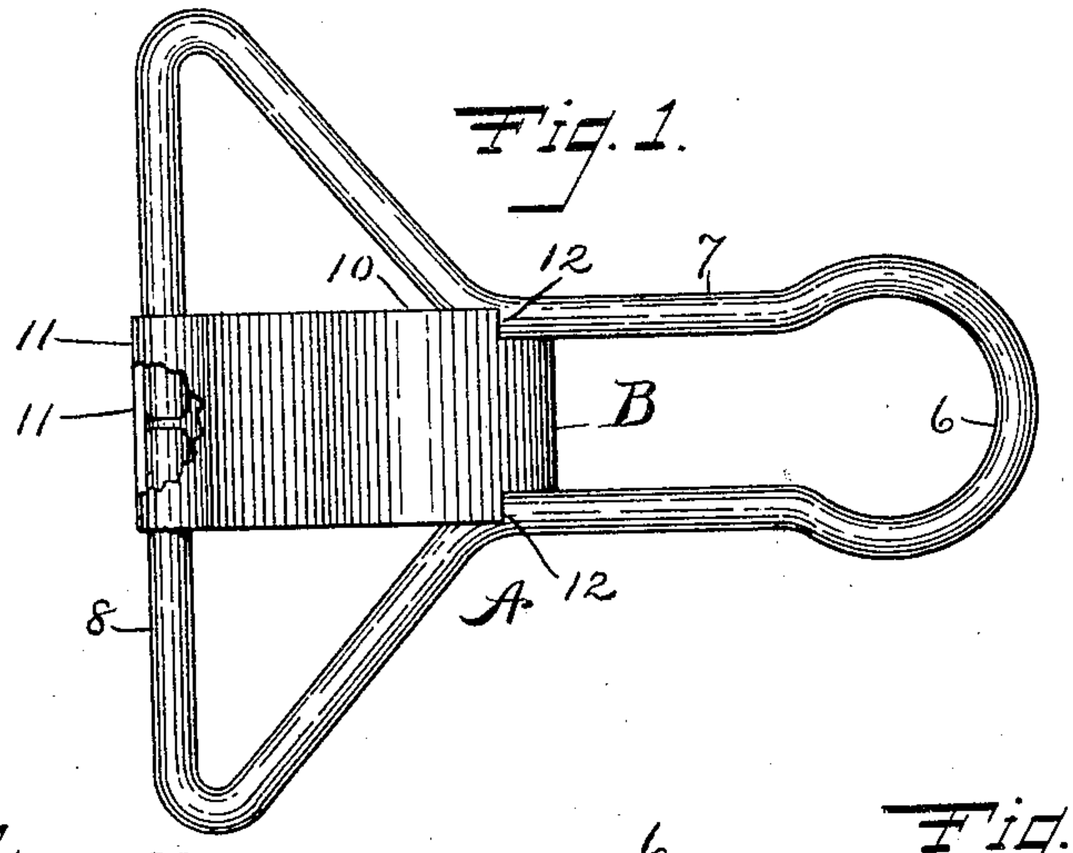


Fig. 2.

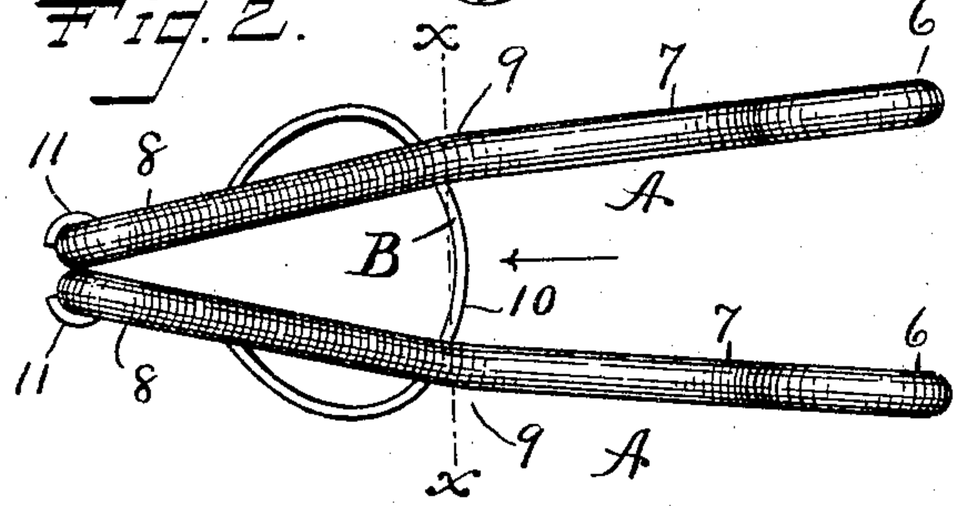


Fig. 4.

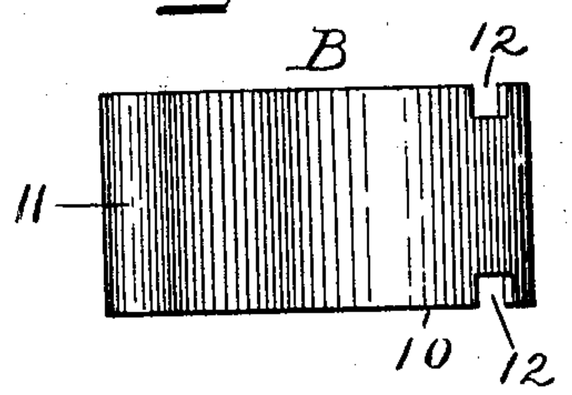


Fig. 3.

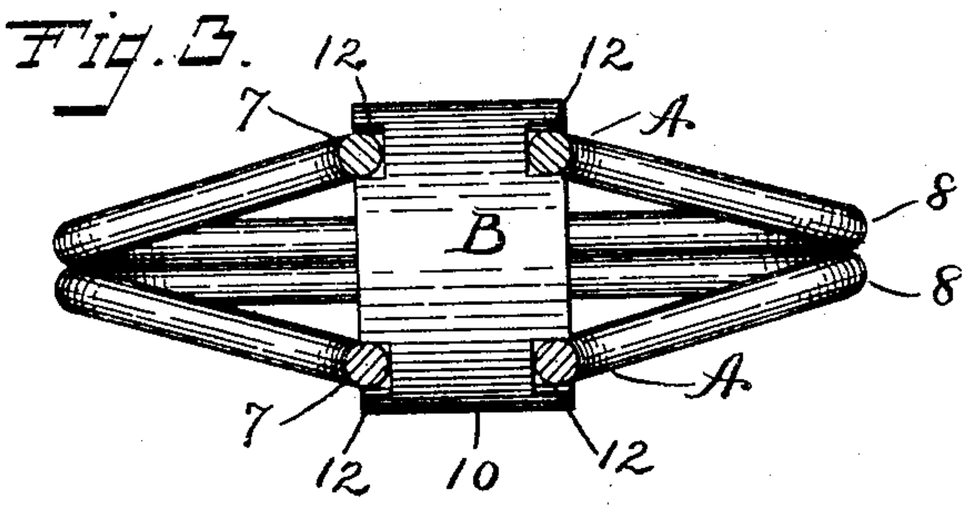
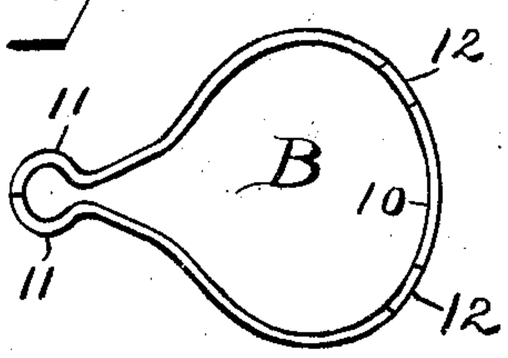


Fig. 5.



Witnesses.

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UNITED STATES PATENT OFFICE.

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PAPER CLIP OR CLASP.

No. 912,191. Specification of Letters Patent. Patented Feb. 9, 1909.

Application filed December 18, 1907, Serial No. 407,014. Renewed December 28, 1908. Serial No. 469,659.

To all whom it may concern:

Be it known that I, CHARLES B. SIMMONS, a citizen of the United States, residing at Bristol, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Paper Clips or Clasps, of which the following is a specification.

My invention relates to improvements in paper clips or clasps and the objects of my improvement are simplicity and economy in construction, with efficiency and durability when constructed.

In the accompanying drawing: Figure 1 is a plan view of my clip with a portion of the spring broken out. Fig. 2 is a side elevation or edge view of the same. Fig. 3 is a transverse section of the lever arms on the line *x x* of Fig. 2, the spring being shown in elevation. Fig. 4 is a detached plan view of the spring, and—Fig. 5 is a side elevation or edge view of the same.

My clip is composed of three members, viz. two lever arms A, A, and a spring B. The arms A, A, are each formed from a single piece of wire doubled upon itself by an open rounded bend near the middle of its length, to form a handle 6, from which handle, the two wire members of the arm extend substantially parallel to each other to form with the said handle a lever 7. The doubled wires or members are then bent outwardly away from each other and then inwardly to form a jaw member 8 on the outer end of each lever arm. I prefer to have the two ends of the wire in each arm meet or nearly meet each other at about the middle of each jaw member. In order to prevent the handle portions of the two jaws from standing too far apart for convenience in use, I form an angle or bend 9 at a point near the junction of the jaw member 8 and the lever 7, as shown in Fig. 2.

The spring B is formed of a piece of sheet steel, doubled upon itself by a large roll or coil 10 in the middle of its length, while each free end is bent into a semi-coil or half socket 11, of a size to receive and substantially fit the wire at the outer ends of the jaw members; the entire length of the spring being about the same, or a little in excess of, the dimensions of the jaw members, lengthwise of the arms A, A. Four notches or recesses 12 are formed in the opposite edges of the spring, (two notches in each edge,) at the back or inner side of the large roll or coil 10 which is the larger end of the spring. The spring should be so formed that before being assembled with the lever arms its free ends or sockets 11 come together as shown in Fig. 5, and preferably so that they are then under some tension tending to hold them together. The lever arms are also somewhat resilient and should be so formed that the two members of the wire of either arm will be put under greater tension upon any attempt to spread the said members apart.

The parts are assembled by spreading the two members of either arm apart far enough to receive the full width of the spring between the said members and then forcing the large coil between the said members until they reach the notches or recesses 12 when said members will snap into said recesses, as best shown in Fig. 3, while the coils or sockets 11 at the ends of the spring bear upon the outer sides of the two jaw members, as shown in Figs. 1, 2 and 3. This will spread the free ends of the spring farther apart than they were before being assembled, whereby the spring is put under proper tension to hold the outer ends of the jaw members firmly together. When thus constructed and assembled the parts will be interlocked and securely held together without the aid of rivets or other fastenings and the completed article may be used by compressing the handles to open the jaws and then releasing the members bearing the said handles to the force of the spring, as in other clips or clasps of this class.

By my improvement the clip is constructed of two pieces of wire and one piece of sheet metal with no rivets or other fastenings whereby the clip is constructed at a small cost, and is found to be very durable and efficient.

I claim as my invention:

1. A paper clip or clasp comprising two lever arms, each consisting of a handle member and a jaw member formed of one piece of wire doubled upon itself with the confronting ends of the said wire brought nearly together at about the middle of the jaw member, and a sheet metal spring doubled upon itself at the middle portion with half sockets formed in its free ends, the said spring interlocking the said two arms and yieldingly holding

them together with the half sockets at the free ends of the spring bearing on the jaw member at the confronting ends of the wire.

2. A paper clip or clasp comprising a pair of lever arms formed of doubled wire, and a sheet metal spring doubled over to bring its free ends together and having wire receiving recesses in its edges at its larger end to receive the doubled wire of the said arms, and wire receiving sockets at its smaller end to receive the jaw end of the said arms.

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