## H. D. REEVE. PAPER CLIP.

No. 580,991.

Patented Apr. 20, 1897.



Fig.3.

Fig. 5.

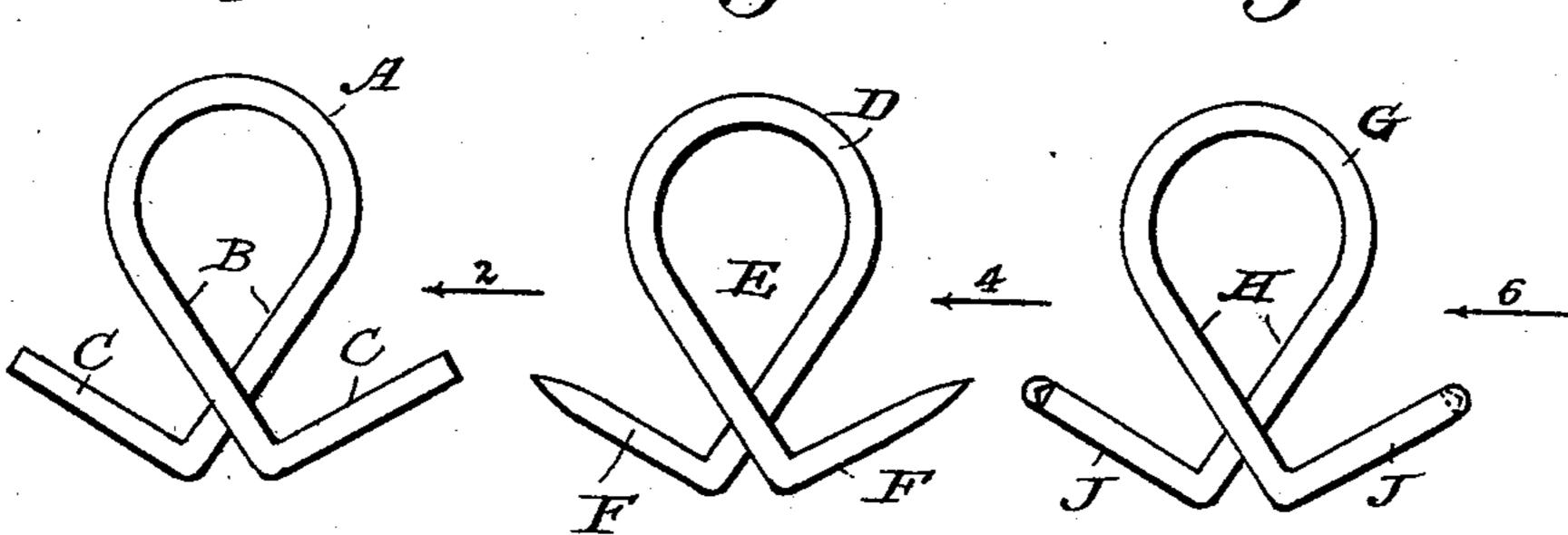
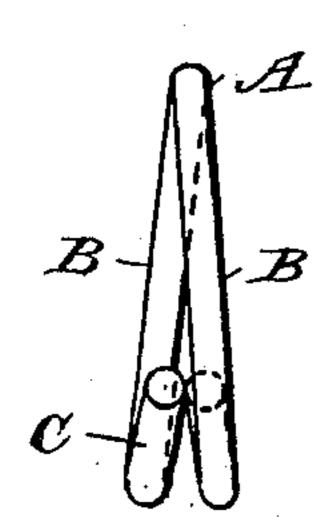
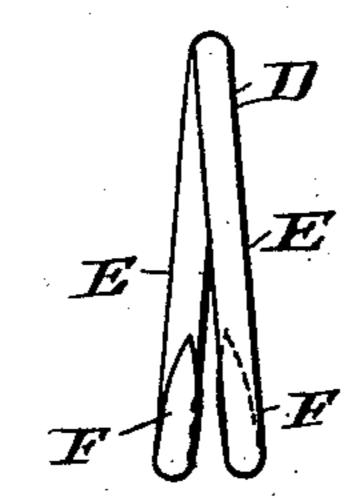


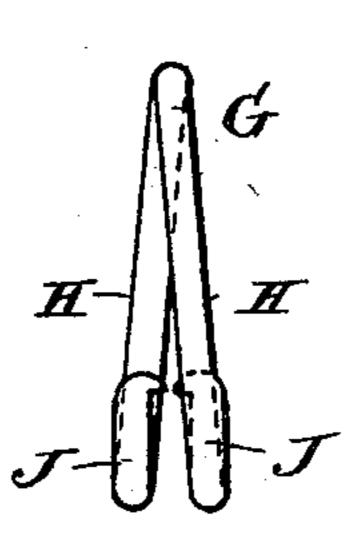
Fig. 2.

Fig.4.

Fig. 6.







Witnesses:

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## United States Patent Office.

HORACE DISBROW REEVE, OF PHILADELPHIA, PENNSYLVANIA.

## PAPER-CLIP.

SPECIFICATION forming part of Letters Patent No. 580,991, dated April 20, 1897.

Application filed December 16, 1896. Serial No. 615,831. (No model.)

To all whom it may concern:

Be it known that I, Horace Disbrow Reeve, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Paper-Clips; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in paper clips or fasteners for securing together two or more sheets of paper and similar thin 15 attenuated articles; and the objects of my invention are to securely hold together sheets of paper, bills, bill-heads, bills of lading, and the like, by friction of the clamping contactsurfaces of the clip or fastener with the two 20 outside sheets of the article clamped, together with the frictional contact, induced by the pressure of my improved clip or fastener, of one sheet of paper, bill, bill-head, bill of lading, and like articles bound or clamped, to 25 obviate the inconvenience so often occasioned by having papers mislaid, and to prevent the wind from scattering papers about offices, which frequently carries valuable papers out of windows in the summer season when it is 30 necessary to keep windows up for the purpose of ventilation. I attain these objects by

Figure 1 is a view of my clip or fastener 35 with the free ends cut off bluntly. Fig. 2 is another view of the device shown in Fig. 1, illustrating the cut free ends of the fastener or clip. Fig. 3 is a view showing a modification of my improved clip or fastener having 40 pointed ends. Fig. 4 is another view of my improvement, showing the free ends pointed or sharpened, as illustrated in Fig. 3. Fig. 5 is another modification of my invention, showing the clip or fastener with pointed ends 45 turned at right angles to the free arms or members thereof. Fig. 6 is another view of the device shown in Fig. 5, illustrating the pointed right-angled ends of the arms thereof for slightly piercing the outside sheets of pa-

the construction illustrated in the accompa-

nying drawings, in which—

per or other articles intended to be clamped 50 thereby.

Similar letters refer to similar parts throughout the several views.

The letter A refers to the body of my preferred form of clip or fastener bent upon itself 55 until the two members B B cross each other, and after crossing or passing each other each of said members B B is again bent at right angles to each respective member and forms the free members C C, which free members 60 form clamping or frictional surfaces between the two outside sheets of paper designed to be held by my improved clip or fastener.

The free ends of the arms or members C C are cut bluntly off, inasmuch as it is the ob- 65 ject of my invention, when this my preferred form of device is used, not to puncture or pierce the two outside sheets of paper or like articles thus bound or clamped together, but merely to hold the two outside sheets of at- 70 tenuated articles by frictional contact induced between the free arms or members C C and the outside sheets of the attenuated articles thus bound together and by the springarms or spring members B B and the pressure 75 thereby occasioned and friction caused by the contact-surfaces of the sheets between the two outside articles held or bound together by my clip or fastener.

In Figs. 3 and 4 I have shown a modified 80 form of my clip or fastener designed to operate and hold together sheets of paper, bills, bill-heads, bills of lading, and similar articles in like manner to that hereinbefore described and shown in Figs. 1 and 2 of the drawings, 85 my preferred form of my invention.

The construction illustrated in Figs. 3 and 4 of the drawings may, however, be employed in binding or holding together more securely sheets of attenuated material by clamping together the said sheets between the two spring arms or members E E, and in addition to these clamping-surfaces the pointed arms or members F F, one at a time, may be forced into one, two, or more sheets of the material thus 95 clamped together, and after one of the said arms F has been thrust through one or more of the sheets the other pointed member or arm

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F may in like manner be pushed or punched through one or more of the sheets of material on the opposite side of the bundle or package being thus bound or held together by the 5 clip or clamp D, and after both of the free ends or arms F have been forced through the said two or more sheets of the material, on both sides of the bundle or package, and clamped, the clip D may be adjusted in such a manner 10 as to withdraw the free pointed ends of the arms or members F from the holes made by them and in this way prevent either or both of the said free pointed ends of the arms or members F F from being easily withdrawn 15 from the holes or perforations made thereby.

Figs. 5 and 6 of the drawings show another form of my improved clip or fastening device. The letter G represents the body of the clip, II II the spring arms or members bent upon 20 themselves until they have crossed each other, and the free arms or members J J being merely extensions of the arms or members H H are bent at right angles to the arms II H. This form of my improved paper clip or fastener 25 is intended to be used in the same manner as the preferred form of the device, (illustrated in Figs. 1 and 2 and hereinbefore described;) but in addition to the frictional surfaces induced by contact of the free arms or members 30 JJ, I have provided a pointed right-angled inturned puncturing contact-surface designed to pierce or puncture the two outside sheets of the material intended to be held together by this form of my improved clamping device. 35 It is not intended, however, in using the modification shown in Figs. 5 and 6 of the draw-

ings to pierce or puncture entirely through the two outside sheets of material of the bundle or package clamped or fastened thereby, 40 but merely to give additional frictional contact-surfaces between the free or pointed ends of the members J J and the two sheets of material on the outside of the package, trusting

to the pressure induced by the spring arms or 45 members H H for the frictional contact-surfaces between the other sheets of paper in the bundle or package to be held intact with each other.

The mode of operation and the function of 50 the different parts of my clip or fastener hereinbefore described are so obvious and manifest to any one familiar with the art to which my improvement relates that I deem it unnecessary to further give a detailed mode or manner of operating my improved clip or 55 

Having fully described my invention, what I claim, and desire to secure by Letters Pat- ${
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1. In a device for fastening and clamping 60 together sheets or layers of thin, attenuated material into packages or bundles, the clip or fastener consisting of an elliptical body portion having spring crossed arms or members, adapted to impinge upon each other at their 65 point of intersection, and thereby clamp the material interposed between the same, said arms being bent outwardly at right angles beyond their point of intersection, whereby additional clamping-surface is produced, sub- 70 stantially as herein shown and described.

2. In devices for fastening and clamping together, layers, or sheets of thin, attenuated material, in packages or bundles, the clip or fastener, provided with a body, and spring 75 crossed arms, made integral therewith, for clamping and holding together sheets or layers of thin material, and the free arms or members, turned at right angles to said spring crossed arms, or members, and made integral 80 therewith, forming additional, supplemental, frictional, contact-surfaces, to said spring crossed arms, and said free arms or members having pointed ends, substantially as herein shown and described.

3. In devices for fastening and holding together, layers or sheets, of thin, attenuated material, in packages, or bundles, the clip or fastener, having a body, and spring crossed arms or members, made integral therewith, 90 for clamping and holding together, sheets or layers of thin material, and the free arms or members, turned at right angles to said spring crossed arms, or members, and made integral therewith, forming additional, supplemental, 95 frictional, clamping, contact-surfaces, the said free arms or members, provided with pointed, right-angled, inturned puncturing contact-surfaces, substantially as herein shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

HORACE DISBROW REEVE.

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Witnesses:

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