

No. 843,184.

PATENTED FEB. 5, 1907.

J. P. STELLE.
PAPER FASTENER.
APPLICATION FILED FEB. 5, 1906.

Fig. 1.

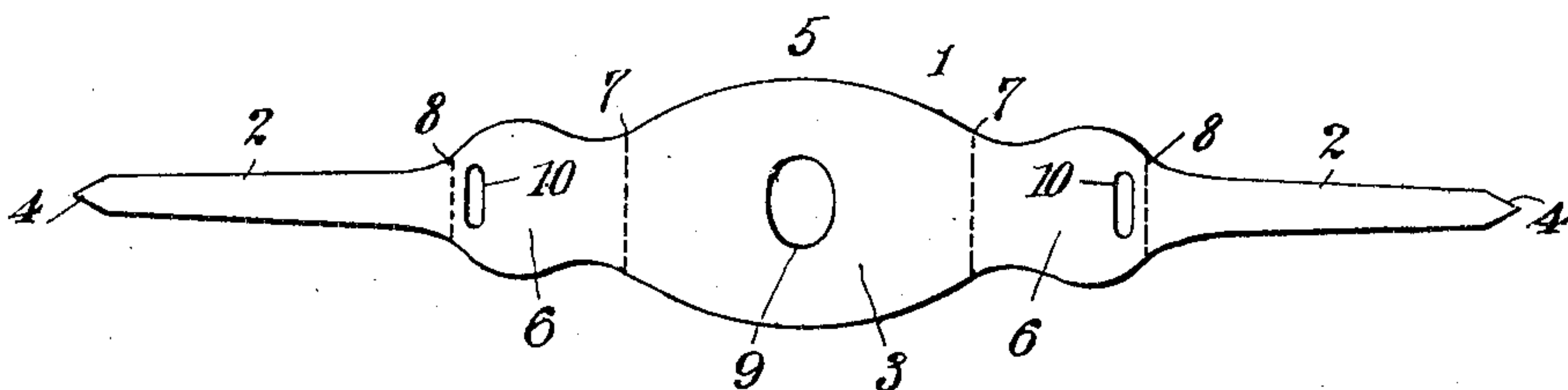


Fig. 2.

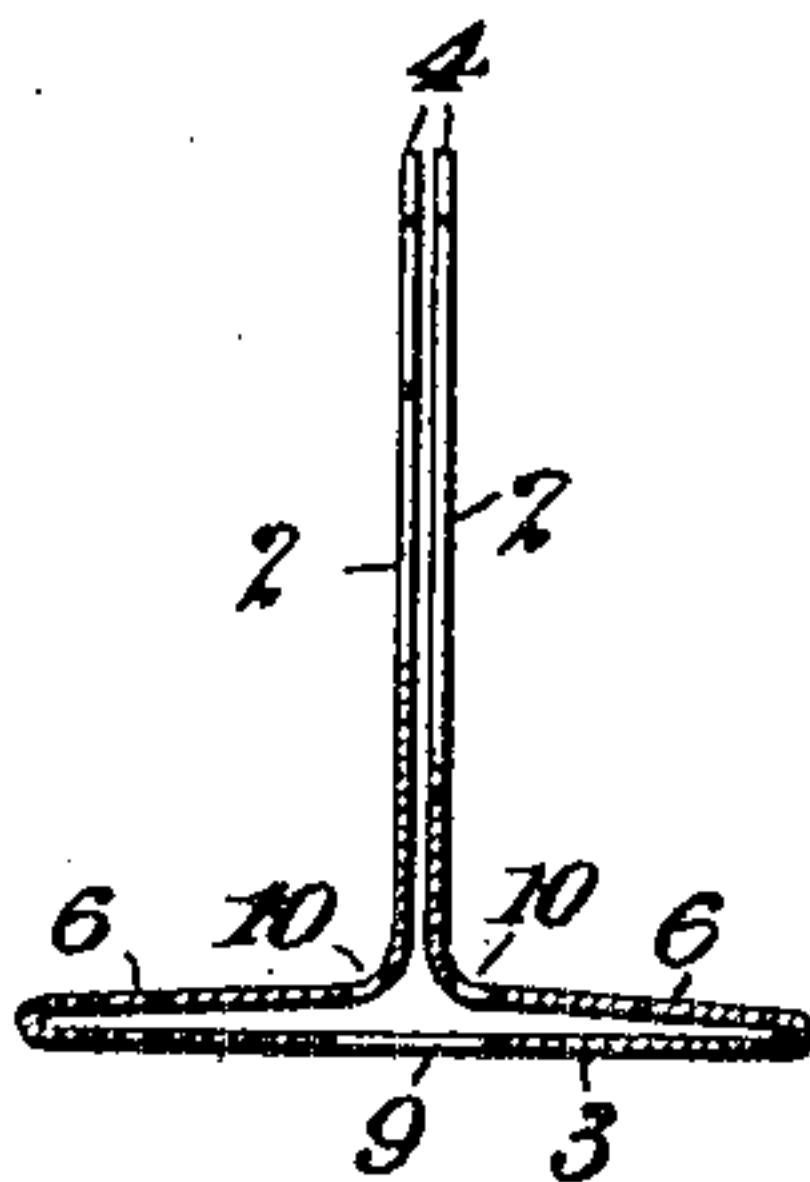
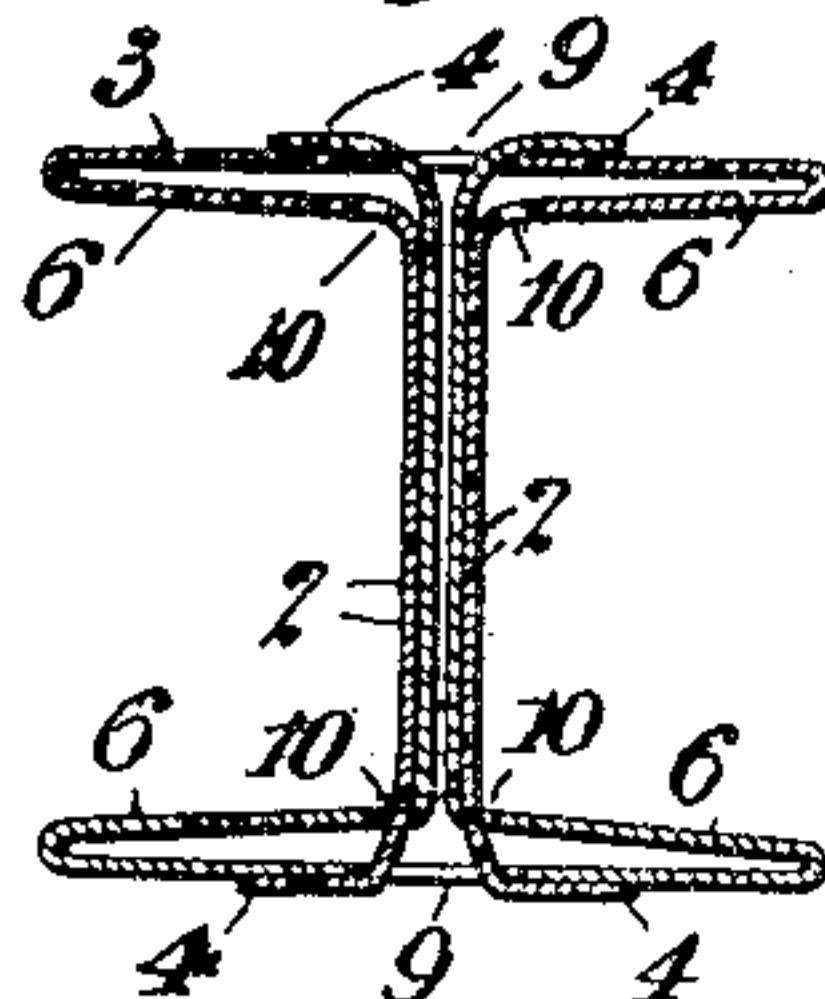


Fig. 3.



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PAPER-FASTENER.

No. 843,184.

Specification of Letters Patent.

Patented Feb. 5, 1907.

Application filed February 5, 1906. Serial No. 299,422.

To all whom it may concern:

Be it known that I, JOHN P. STELLE, a citizen of the United States, residing at New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Paper-Fasteners, of which the following is a full, clear, and exact description.

My invention relates to paper-fasteners, and pertains particularly to fasteners of that class having a pair of flexible prongs or legs which are bent apart so as to form a sort of rivet connection for fastening together sheets of paper or the like.

The principal object of the present invention is to provide a fastener of this character which has a pair of heads to engage the paper at both sides rather than at only one side, as in the ordinary forms.

A further object of the invention is to provide a fastener having the above characteristics and comprising a pair of duplicate parts, each stamped of sheet metal in a simple and economical way and which are identical in all respects.

With these and other objects in view my invention consists in the construction, combination, location, and arrangement of parts, all as hereinafter set forth and shown, and finally particularly pointed out in the appended claims.

In the drawings, Figure 1 is a plan view of the blank which may be bent to form one part of a fastener embodying the principles of my invention. Fig. 2 is a sectional view on a plane slightly to one side of the center line of the complete fastener. Fig. 3 is a sectional view of one of the duplicate parts in the form as ordinarily packaged and sold.

Referring to the drawings, in which like parts are designated by the same reference-sign, 1 denotes a blank of sheet metal or other material having prongs 2 at each end and an enlarged central portion 3, which I construct in a special way. The prongs 2 are pointed at their outer ends, as shown at 4, for insertion into the articles to be fastened, as will later more fully appear. I construct the central portion 3 of the fastener of a greater width than the end prongs, so as to form a head 5 of generally elliptic shape.

6 denotes portions of the fastener which are folded together beneath the head 5, being bent for this purpose upon the lines 7, so as to support the prongs 2 in parallel juxtaposition, as shown in Figs. 2 and 3. For this

purpose the prongs are bent with relation to the parts 6 upon the lines 8. Instead of forming the surfaces of the head 5 and the parts 6 plain I perforate the head 5 with a comparatively large central hole 9, and I also punch a pair of elongated holes 10 in the portions 6 closely adjoining the bases of the prongs 2. The relation is such that when the portions 6 are bent beneath the head 5, as illustrated in Fig. 3, the openings 10 will lie in alinement with the hole 9 and closely adjacent the respective shanks or prongs 2.

The use and operation is as follows: It being desired to fasten together sheets of paper or other articles, a pair of the fasteners embodying my invention, as illustrated, are obtained, and one of them is passed through the sheets in the usual way. The other duplicate part or fastener is then inserted with its prongs between the prongs of the first fastener, so that it may be pushed inward until its prongs project outward through the hole 9 of the first fastener. At the same time the prongs of the first fastener will pass through the openings 10 of the second fastener. It is now merely necessary to press the two fasteners together so that their respective heads engage both sides of the papers to be fastened firmly and securely, after which the respective prongs are bent over to make the relation permanent. It will be observed that the papers to be fastened are engaged on both sides by the flat under surface of heads having a square-shouldered connection with their shanks or prongs, so that little or no cutting or wearing action is imposed on the sheets to enlarge the holes therethrough or otherwise injure the fabric. At the same time the engagement of the prongs with the hard metallic surface of the opposite head insures the prongs being bent over more squarely and with a sharper corner, so that they offer a greater resistance to the separation of the heads than would be the case if they presented a more rounded corner. The separation of the heads is also opposed by four bent prongs, and these factors taken together produce an engagement so strong that the heads do not become separated in practice under any circumstances.

What I claim is—

1. Means for securing together sheet materials comprising a pair of identical sheet-metal fasteners each having two prongs and a perforation in coaxial relation thereto, the prongs of each fastener being interchange-

ably adapted to pass through the perforation of the other.

2. Means for securing together sheet materials comprising duplicate fasteners each having heads and each provided with a pair of prongs projecting perpendicularly to said heads to engage the other fastener, and each fastener having a pair of holes symmetrically disposed on either side of a central axis of the fastener passing between said prongs and parallel with the longitudinal direction thereof whereby two fasteners are assembled in coaxial relation to clamp the papers between heads on the separate fasteners.

3. Means for securing together sheet materials comprising duplicate fasteners each having a head with a central hole, and a pair of prongs projecting adjacent said hole and on opposite sides thereof, whereby two fasteners may be assembled with the prongs of one entering the hole of the other.

4. Means for securing together sheet materials comprising duplicate fasteners each having a head with a central hole, and a pair of prongs projecting from said head adjacent said hole, the fasteners being additionally perforated adjacent said prongs, whereby two fasteners may be assembled with their prongs projecting through said hole and said perforations respectively.

5. Means for securing together sheet materials comprising fasteners each having a head, portions bent inwardly from said head and having perforations, and shanks or prongs extending normally to said head and adjacent to said perforations, said head having a hole opposite said shanks or prongs.

6. Means for securing together sheet materials comprising fasteners each having a head with a central hole, portions bent beneath said head, and prongs on said portions, said portions being perforated adjacent to the base of said prongs.

7. Means for securing together sheet materials comprising a pair of fasteners each having heads with prongs of sheet material of uniform thickness projecting therefrom, each of said heads being perforated symmetrically with respect to a central axis to receive the prongs of the other, whereby two fasteners may be assembled to secure the papers, with the prongs of each bent over upon the outside surface of the head of the other.

In witness whereof I subscribe my signature in the presence of two witnesses.

JOHN P. STELLE.

Witnesses:

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