

No. 620,223.

Patented Feb. 28, 1899.

C. A. BRYANT.  
FASTENER.

(Application filed Dec. 13, 1897.)

(No Model.)

Fig. 1.



Fig. 2.

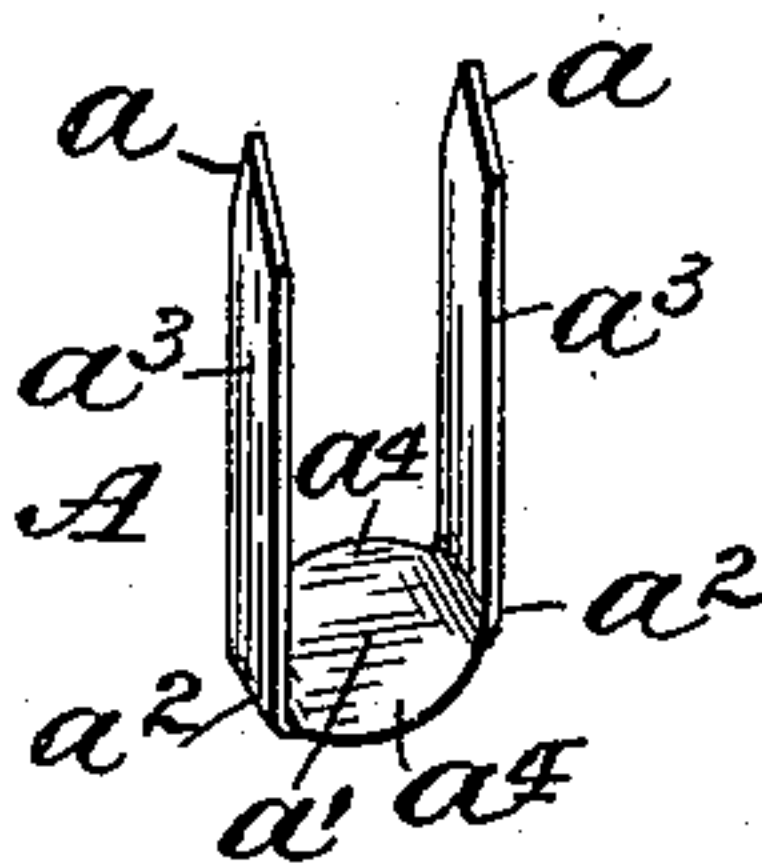


Fig. 4.



Fig. 3.

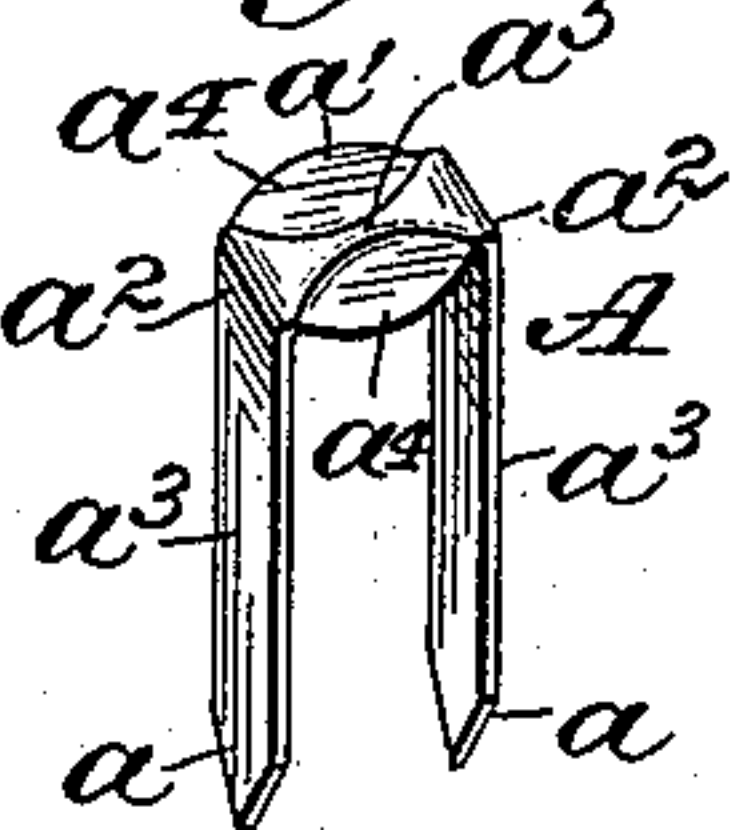


Fig. 5.

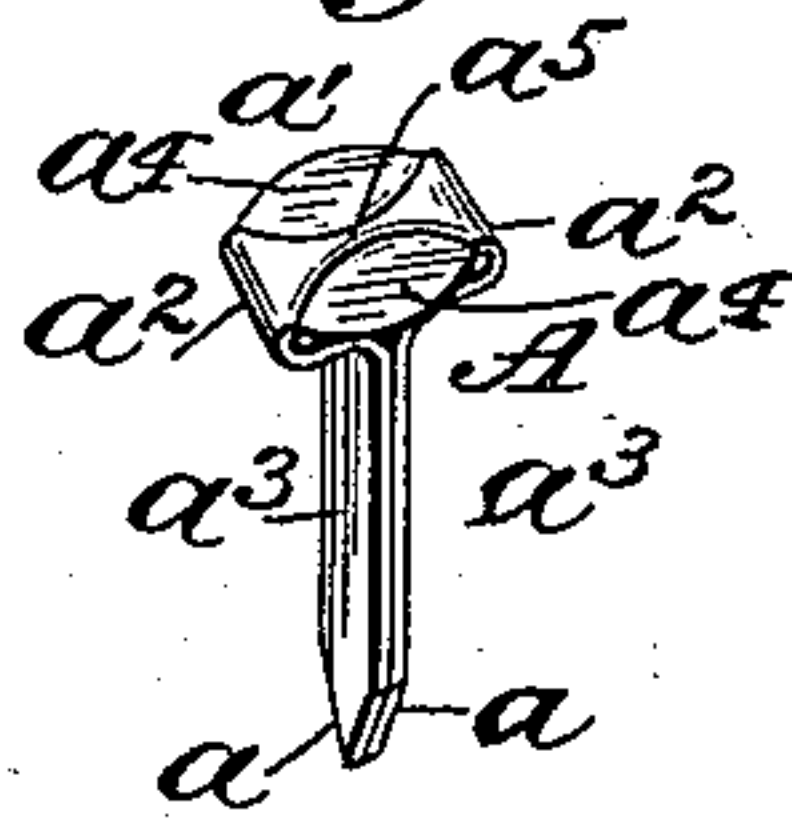
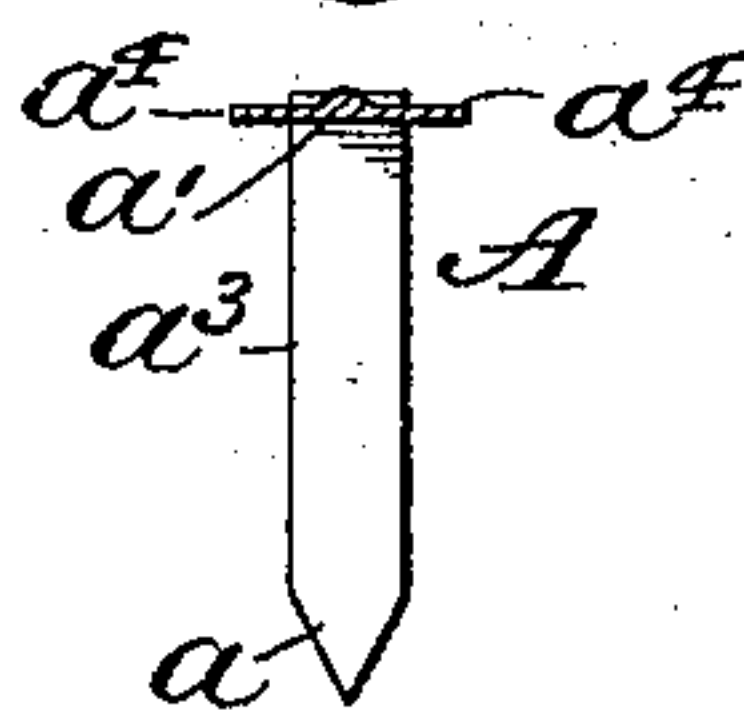


Fig. 6.



Attest:

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# UNITED STATES PATENT OFFICE.

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## FASTENER.

SPECIFICATION forming part of Letters Patent No. 620,223, dated February 28, 1899.

Application filed December 13, 1897. Serial No. 661,601. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES A. BRYANT, a citizen of the United States, residing in Wakefield, in the county of Middlesex, in the State of Massachusetts, have invented certain new and useful Improvements in Fasteners, of which the following is a specification, reference being had to the accompanying drawings, forming a part hereof.

10 This invention relates to metallic fasteners, such as are used as rivets or as paper-fasteners, having thin flat shanks for securing together sheets of paper, cloth, and even metal.

15 The object is primarily to enable a broad-headed fastener or rivet to be produced at lower cost than similar fasteners or rivets with thin flat shanks now generally employed. The reduction of the manufacturing cost is effected by a saving in the material employed  
20 and by a saving in the amount of labor necessary to produce the finished article, the fastener being made in one piece from a single strip of thin flat metal of uniform width from end to end, the broad head being formed from  
25 the body of such strip at the same time that such strip is bent in the formation of the fastener.

30 The invention will be more fully described hereinafter with reference to the accompanying drawings, in which the improved fastener is shown in two slightly-different forms, which are chosen merely for illustration.

35 In the drawings, Figure 1 is a perspective view of a strip or blank from which the fastener is to be formed. Fig. 2 is a perspective view of the fastener inverted in the second stage of manufacture. Fig. 3 is a similar view of the fastener in the same stage with the head uppermost. Figs. 4 and 5 are views  
40 similar to Figs. 2 and 3, respectively, but showing the fastener in its completed condition. Fig. 6 is a sectional elevation of the fastener, the head being in section.

45 The blank A (shown in Fig. 1) is of any suitable material and is formed of a thin flat strip of uniform width from end to end—that is to say, there being no part of the strip of a

greater width than the rest for the purpose of forming the head. The ends *a a* of the strip are pointed, but may be otherwise 50 formed, as may be most desirable. It is obvious that these strips can be made at a minimum cost and practically without any waste of material. By means of suitable tools or machinery (not necessary to be described 55 herein) the blank is bent to form the fastener, substantially as now practiced, the shoulder portions *a*<sup>2</sup> being bent back upon the under side of the head portion *a*<sup>1</sup>, while the thin flat shank portions *a*<sup>3</sup> stand close together at right 60 angles to the head portion. During the formation of the fastener, as described, the head portion *a*<sup>1</sup> is subjected on opposite sides of its central line to the impact or pressure of dies, which expand the metal laterally, as indicated at *a*<sup>4</sup>, the expanded portion *a*<sup>4</sup> being 65 consequently reduced in thickness and being separated, or nearly separated, by a thickened portion or rib *a*<sup>5</sup>, which serves to give the necessary stiffness to the rib to prevent 70 it from giving away in use. In this manner the broad head, which is highly desirable, if not a practical necessity, in fasteners of this description, is secured without requiring the widening of the strip or the addition of a cap, 75 which must be formed separately and applied to the head by a separate operation.

I claim as my invention—

A metallic fastener formed of a thin, flat strip of substantially uniform width, said strip 80 being expanded laterally and reduced in thickness on each side of its central line to form the broad head of the fastener, the portions of reduced thickness being separated by a rib or portion of greater thickness and 85 the shoulder portions being bent back under the head with the thin, flat shanks close together, substantially as shown and described.

This specification signed and witnessed this 10th day of December, A. D. 1897.

CHARLES A. BRYANT.

In presence of—

CHARLES F. HARTSHORNE,  
CHARLES E. WALTON.