

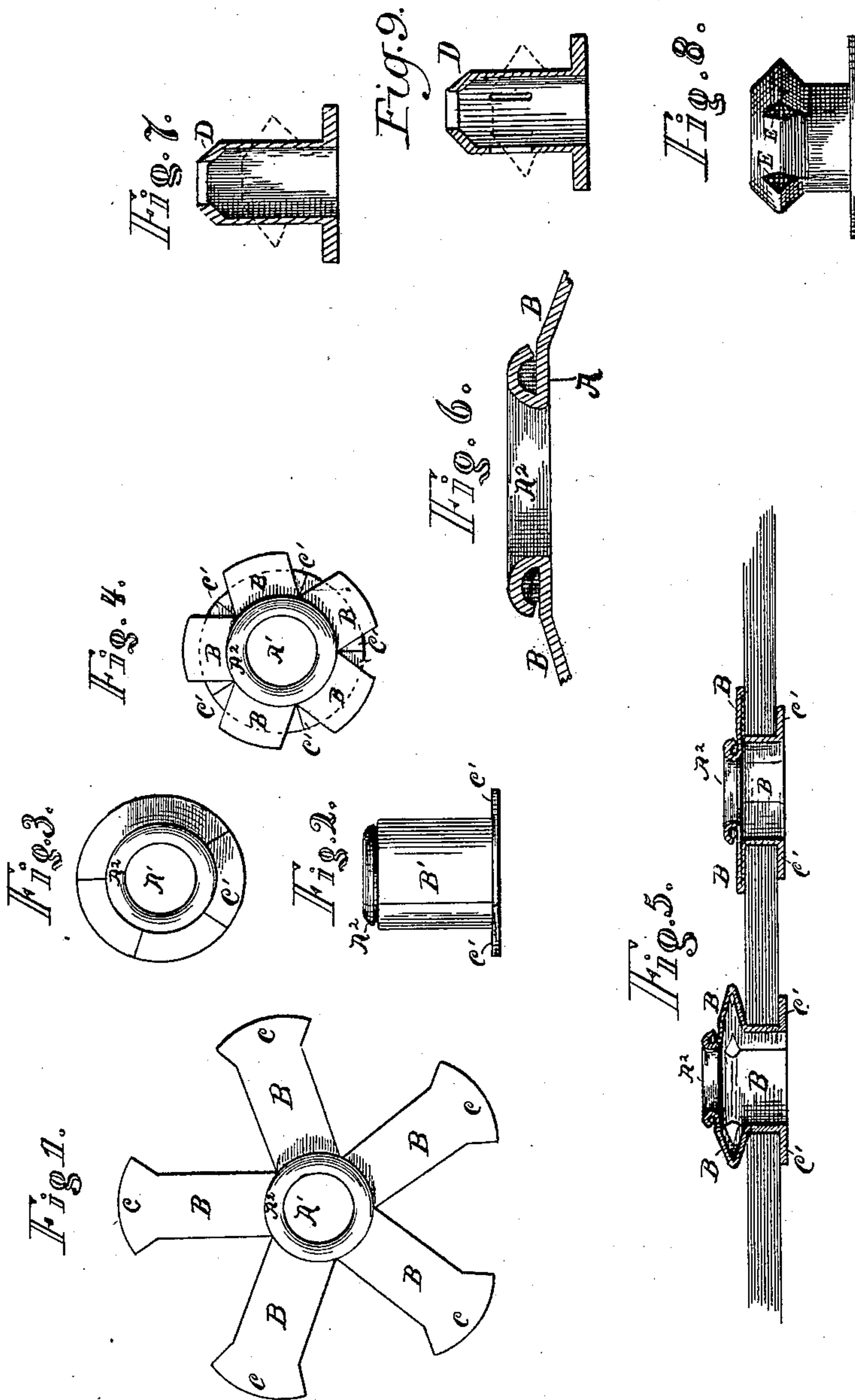
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Patented Apr. 29, 1902.

H. G. WEIBEZAHL.  
EYELET.

(Application filed Sept. 11, 1901.)

(No Model.)



Witnesses:  
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# UNITED STATES PATENT OFFICE.

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## EYELET.

SPECIFICATION forming part of Letters Patent No. 698,770, dated April 29, 1902.

Application filed September 11, 1901. Serial No. 75,021. (No model.)

*To all whom it may concern:*

Be it known that I, HERMAN G. WEIBEZAH, a citizen of the United States, and a resident of the borough of Manhattan, city, county, and State of New York, have invented certain new and useful Improvements in Eyelets; and I hereby declare the following, taken in conjunction with the accompanying drawings, to be a full, clear, and exact description of same.

10 The subject of the present invention is an improved eyelet for fastening together thicknesses of paper or other material, and has for its primary object the production of an article of a class referred to which when set will in addition to its normal flange at one end present at the other a head formed by the laterally-spread metal effected by the compression sustained during the setting operation.

To this end the invention consists in part of an eyelet having a normal base-flange and with the metal at the other open end so strengthened that when the eyelet is compressed in the setting operation such stronger metal portion will cause the weaker metal contiguous thereto to spread laterally and present a highly satisfactory head.

There are other novel features connected with my invention which are fully disclosed hereinafter.

30 In the accompanying drawings, forming part of this specification, Figure 1 is a plan view, on an exaggerated scale, of a blank indicating the partial formation of one form of eyelet embodying my invention. Fig. 2 is a vertical elevation of the eyelet completed from the blank illustrated in Fig. 1. Fig. 3 presents a top view of the eyelet before being crushed, while Fig. 4 illustrates the same when crushed, showing the head formed by the laterally-spread barrel. Fig. 5 represents my eyelet in two positions, partially set and completely set in the paper. Both views are shown in section. In Fig. 6 is shown a section of the head of the eyelet, showing in detail the formation of the fortified ring portion constituting the eye of the improved eyelet. Fig. 7 is a vertical sectional view of another form of eyelet embodying my invention, the slits being omitted and the dotted lines indicating the spread portion forming the head. Fig. 8 is a vertical side elevation of another

form of improved slitted eyelet, the portion to form the head being represented as partially spread. Fig. 9 is a vertical sectional view of the form shown in Fig. 8 before being spread.

Similar reference characters designate corresponding parts in the several figures.

Referring more particularly to Figs. 1 to 6, the blank from which the eyelet is to be formed is of thin metal and comprises a central portion A, from which extend a series of radial members B, each terminating in a sector-shaped end C, as indicated in Fig. 1. The metal of the central portion A immediately surrounding the opening A' therein is turned over to present an annular curled beading A<sup>2</sup> around the said opening, which constitutes a ring carrying the eye of the eyelet. The members B are bent right-angular to the portion A, with their edges closely adjacent to each other to constitute a barrel B', open at the other end, the sector ends C being bent laterally outward to conjointly form a horizontal flange C' at such open end.

From the description thus far, it will be seen that an eyelet is produced which can be inserted in an opening provided therefor in the thicknesses of paper or other material to be fastened, and when pressure is exerted on the stronger metal presented by the beading it will be transmitted to weaker contiguous slit portions of the barrel to cause the latter to collapse and spread outward laterally to form a satisfactory head, as shown in Fig. 4. The outwardly bend of the members composing the barrel is assured by the pressure of the stronger or doubled portion of the beading forming the eye; but an anvil on springs upon which the eyelet is designed to be set makes the collapsing inwardly of the members an impossibility.

In Fig. 7 the barrel and its flange are unslitted, the stronger metal at the other open end being secured by contracting the eyelet to obtain a tapering portion D. This is done in the drawing process, the barrel being drawn relatively thinner than the tapering portion, as shown, which is not crimped or otherwise weakened. The angle at which it is set in relation to the barrel assures the outward spread of the latter.



Figs. 8 and 9 illustrate the arrangement for securing the stronger metal at the end where the head is to be formed, the same as in Fig. 7, the barrel being provided with slits E, which do not extend to the normal flange of the eyelet.

As thus explained, it will be appreciated that an eyelet produced in accordance with my invention can be quickly and efficiently applied and set and can be made and sold in quantities at a cost comparing favorably with other types now in use, while presenting advantages possessed by no others.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. An eyelet comprising segmental arms constituting the normal flange and the barrel of the eyelet, with a partially-closed and stronger upper portion constituting its end.

2. An eyelet, the barrel of which has at one of its open ends an inwardly-extending and immediately contiguous flange, the said barrel weaker than the said flange, and a normal base extending outwardly from the said barrel.

3. An eyelet presenting a normal flange at one of its open ends, and constituting the base, the upper end of the eyelet presenting the eye and a flange stronger than the metal of the barrel immediately contiguous thereto, said stronger upper portion capable, upon compression, of causing the metal of the barrel to collapse.

4. An eyelet, the barrel of which has at one of its open ends an inwardly-extending flange, the metal of said barrel immediately contiguous to the said flange weakened and adapted to collapse outwardly and, when so collapsed, to form the head; an outwardly-extending flange at its lower end and composing a retaining-surface corresponding to such formed head between which and the said lower flange the material to be fastened together is confined.

5. An eyelet comprising a slitted barrel provided at one of its open ends with an inwardly-extending flange and at its other open end with an outwardly-extending flange, the said inwardly-extending flange presenting a stronger metal portion than the barrel immediately contiguous thereto and capable of spreading the said slitted barrel outwardly upon compression, and form a head.

6. A sheet-metal eyelet comprising members terminating in sector-shaped ends with a central portion perforated to form, with its surrounding metal, the upper end of the eyelet; the said members forming a barrel with a normal flange presented by the sector-shaped ends, the said upper end of the eyelet involving a stronger metal portion than the immediately-contiguous barrel which, weakened

by the slits, and spread outwardly by compression, forms the head.

7. A sheet-metal eyelet comprising members forming a barrel and terminating in sectors constituting a normal flange at one end, the metal at the other end of the barrel presenting an eye, the flange surrounding said eye being stronger than the barrel metal immediately contiguous thereto.

8. An eyelet having a beading around one of the open ends of the barrel, said beading designed to render the metal stronger thereat and adapted, when subjected to compression, to spread the contiguous weaker metal of the barrel to form a head.

9. An eyelet having a normal flange at one end of its barrel and a beading around the other open end thereof, said beading rendering the metal stronger thereat and adapted, when subjected to compression, to spread the contiguous weaker metal of the barrel to form a head.

10. An eyelet with a slitted barrel and a beading around the upper end thereof, said beading rendering the metal stronger thereat, and adapted, when subjected to compression, to spread the contiguous slitted and consequently weaker metal of the barrel to form the head.

11. An eyelet having a normal flange at one end of a slitted barrel and a beading around the other open end thereof, said beading rendering the metal stronger thereat and adapted, when subjected to compression, to spread the contiguous slitted and consequently weaker metal of the barrel to form the head.

12. An eyelet stamped out of sheet metal and pressed into a barrel, open at both ends, one of the said ends equipped with a beading around the same formed of the metal displaced to form the eye, the said beading designed to cause the barrel to spread outward in those portions of the eyelet extending above the material to be fastened together, and form a broad bearing against the said material.

13. An eyelet stamped out of sheet metal and formed into a barrel with a flange at one of its open ends and a beading formed by the metal displaced to constitute the other open end, the said beading designed to cause the barrel to spread outward in those portions of the eyelet extending beyond the material to be fastened together, and form a broad bearing opposite to the said flange.

In testimony whereof I, HERMAN G. WEIBEZAHN, have signed my name to this specification, in the presence of two subscribing witnesses, this 9th day of September, 1901.

HERMAN G. WEIBEZAHN.

Witnesses:

FRANK H. DAVIS,  
GEO. HESELTINE.