

No. 692,584.

Patented Feb. 4, 1902.

H. T. ADAMS & O. KELLNER.
METAL RING FOR TEMPORARY BINDING.

(Application filed May 31, 1901.)

(No Model.)

Fig. 1.

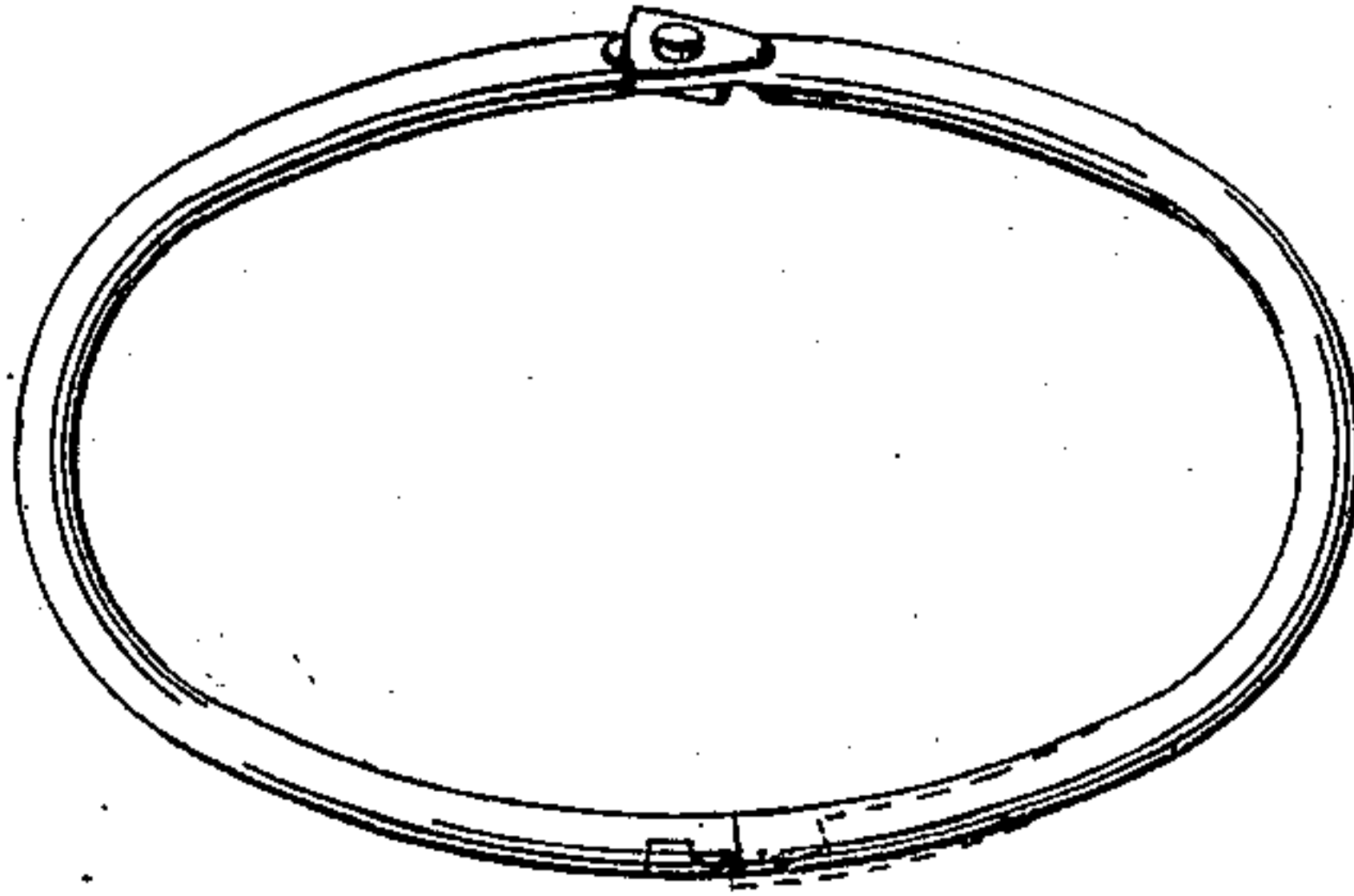
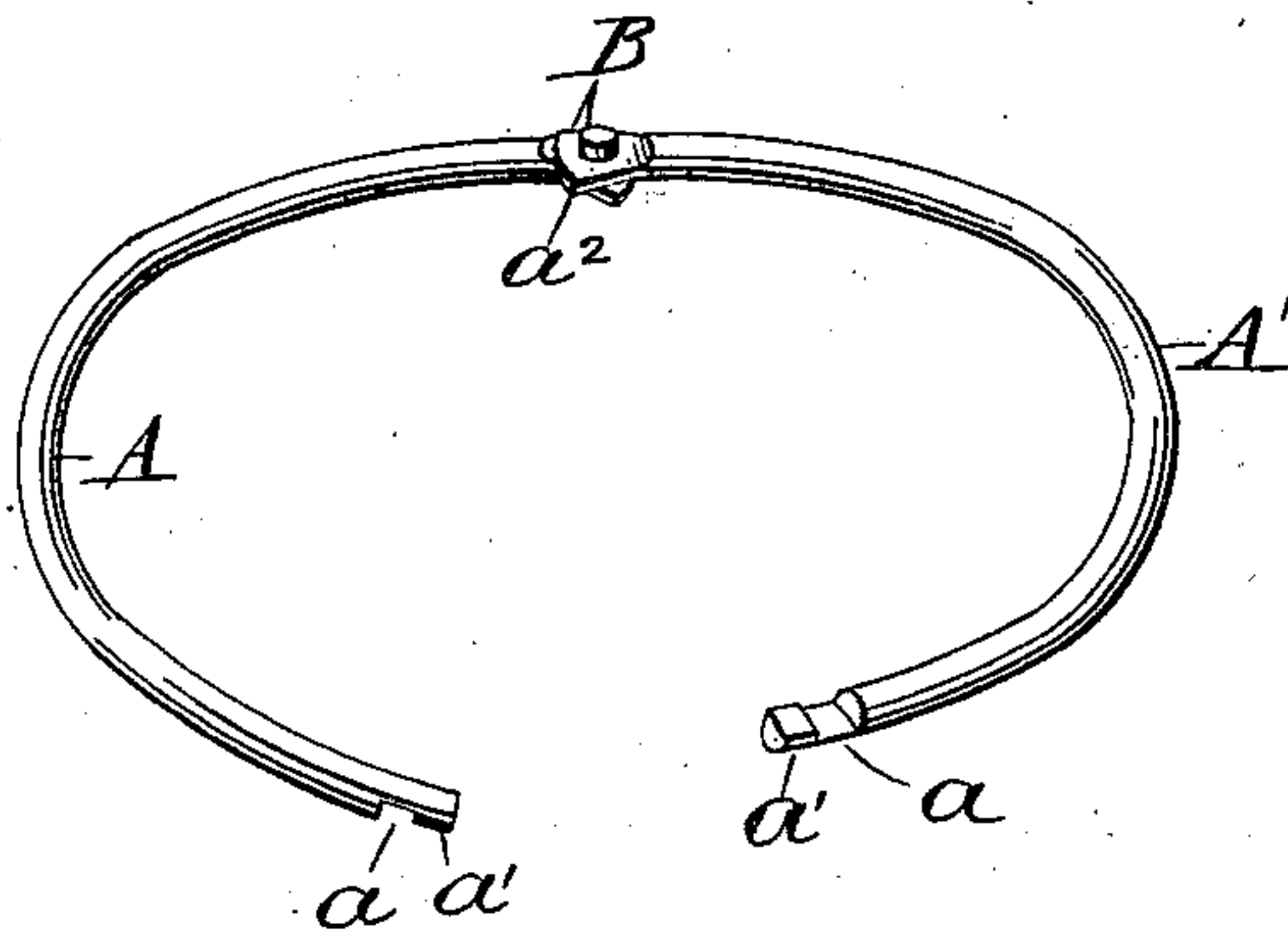


Fig. 2.



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METAL RING FOR TEMPORARY BINDING.

SPECIFICATION forming part of Letters Patent No. 692,584, dated February 4, 1902.

Application filed May 31, 1901. Serial No. 62,646. (No model.)

To all whom it may concern:

Be it known that we, HENRY T. ADAMS and OTTO KELLNER, citizens of the United States, and residents of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Metal Rings for Temporary Binders, &c., of which the following is a full, clear, and exact description.

10 This invention has for its object to provide an improved construction of metal ring more especially designed for use in connection with that class of temporary binders in which a cover having a flexible back with metal eye-
15 lets therein is employed, such eyelets serving to receive the metal rings that retain the loose sheets of paper or the like within the covers of the binder.

20 The invention consists in the novel features of construction hereinafter described, illustrated in the accompanying drawings, and more particularly defined in the claims at the end of this specification.

25 Figure 1 is a perspective view of a ring embodying our invention, the ring being shown in closed position. Fig. 2 is a perspective view showing the ring partially open.

A and A' denote the semicircular sections of the ring, preferably formed of spring-wire.
30 One end of each section is flattened in the direction of the plane of the ring. The flattened ends are overlapped and the sections laterally pivoted together by a rivet B, extending through the flattened portions. The
35 ends of rivet B are sufficiently upset to securely retain the sections of the ring in firm pivotal relation. The free ends of the sections are each provided upon one side with interlocking or notched faces located in planes
40 intersecting the axis of the ring—i. e., extending in the direction of the radius—each of which faces preferably comprises a groove a and an offset a' , shaped to interlock when the ends are brought together, as shown in
45 Fig. 1.

For convenience of description the side of each ring-section which is provided at the free end with the interlocking or notched face is termed the "interlocking" side, while the
50 opposite side is termed the "plain" side.

As shown in the drawings, the plain sides of the ring-sections abut or are adjacent each

other at the pivot-point, while in open position (shown in Fig. 2) the confronting free ends stand in offset relation—i. e., in different
55 planes—with their interlocking or notched faces remote from each other. In bringing the ring-sections together to interlocked position (shown in Fig. 1) it is necessary to positively move the free ends past each other by
60 lateral stress and bring the interlocking or notched faces adjacent. By this movement each of the ring-sections is positively placed under torsional strain, which is then exerted in keeping the sections firmly interlocked. 65

By having the plain sides of the ring-section abut at the pivot-point and flattened the pivot-joint tends to resist this torsional stress and by reaction assists in maintaining the sections interlocked. So, also, this relation
70 relieves the rivet B from a large part of the torsional strain and prevents the joint from soon wearing loose. To better perform these functions, the flattened pivoted ends are preferably enlarged or expanded to a
75 greater width than the diameter of the spring-wire of which the sections are formed, giving a broad bearing between the ends capable of readily resisting the torsional strain and permitting the ring to be formed of smaller wire
80 than would otherwise be possible.

Having described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. A spring-metal ring for temporary bind-
85 ers and the like formed of sections laterally pivoted together at one end, and each provided on one side at the free end with an interlocking or notched face located in a plane intersecting the axis of the ring, which free
90 confronting ends, in open position, stand in offset relation with said notched faces remote from each other but, by lateral stress, are brought together with said notched faces ad-
95 jacent each other and interlocked, whereby said ring-sections are positively placed under torsional strain to hold the parts in interlocked position.

2. A spring-metal ring for temporary bind-
100 ers and the like formed of sections having flattened ends, overlapped and laterally pivoted together, each of said sections having a "plain side" and an "interlocking side," said "plain sides" abutting at the pivot-point and said

“interlocking sides” provided at the free ends with interlocking or notched faces located in planes intersecting the axis of the ring, which free confronting ends, in open position, stand in offset relation with said notched faces remote from each other but, by lateral stress, are brought together with said notched faces adjacent and interlocked, whereby said ring-sections are positively placed under torsional strain to hold the parts in interlocked position.

3. A spring-metal ring for temporary binders and the like formed of sections having flattened ends, overlapped and laterally pivoted together, each of said sections having a “plain side” and an “interlocking side,” said “plain sides” abutting at the pivot-point and said “interlocking sides” provided at the free ends with interlocking or notched faces located in planes intersecting the axis of the

ring, which free confronting ends, in open position, stand in offset relation with said notched faces remote from each other but, by lateral stress, are brought together with said notched faces adjacent and interlocked, whereby said ring-sections are positively placed under torsional strain to hold the parts in interlocked position, said flattened pivoted ends being expanded or enlarged in the direction of the plane of the ring to resist such torsional strain.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

HENRY T. ADAMS.
OTTO KELLNER.

Witnesses:

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