

No. 612,030.

Patented Oct. 11, 1898.

B. H. GARDNER.

BARREL HOOP.

(Application filed June 2, 1898.)

(No Model.)

Fig. 1.

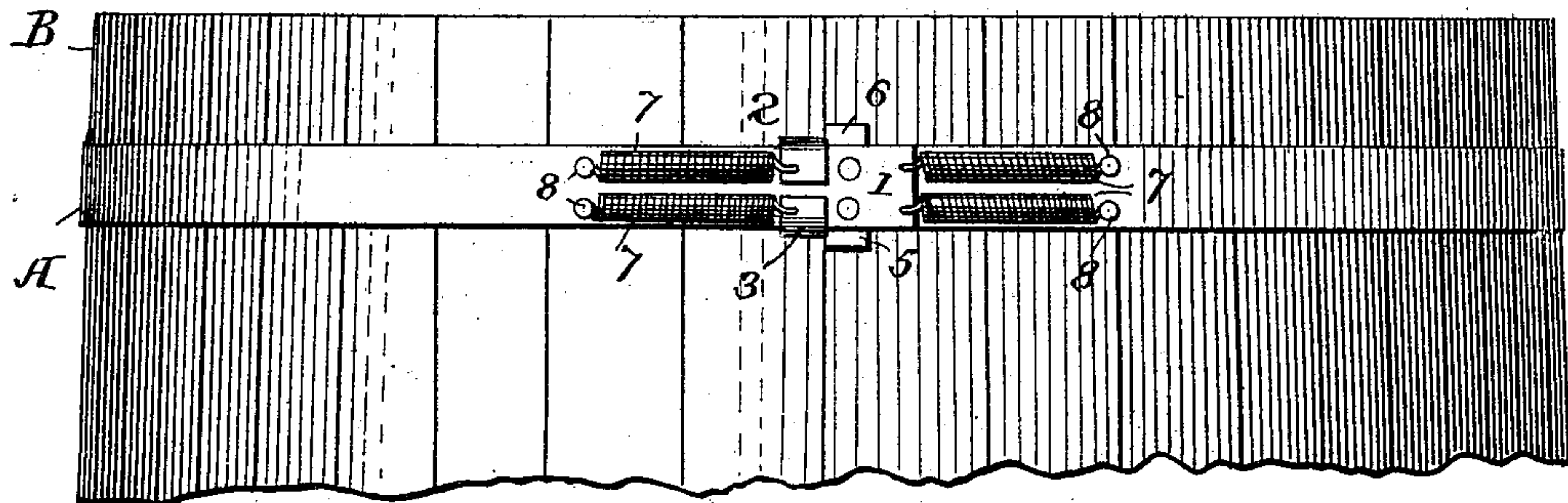


Fig. 2.

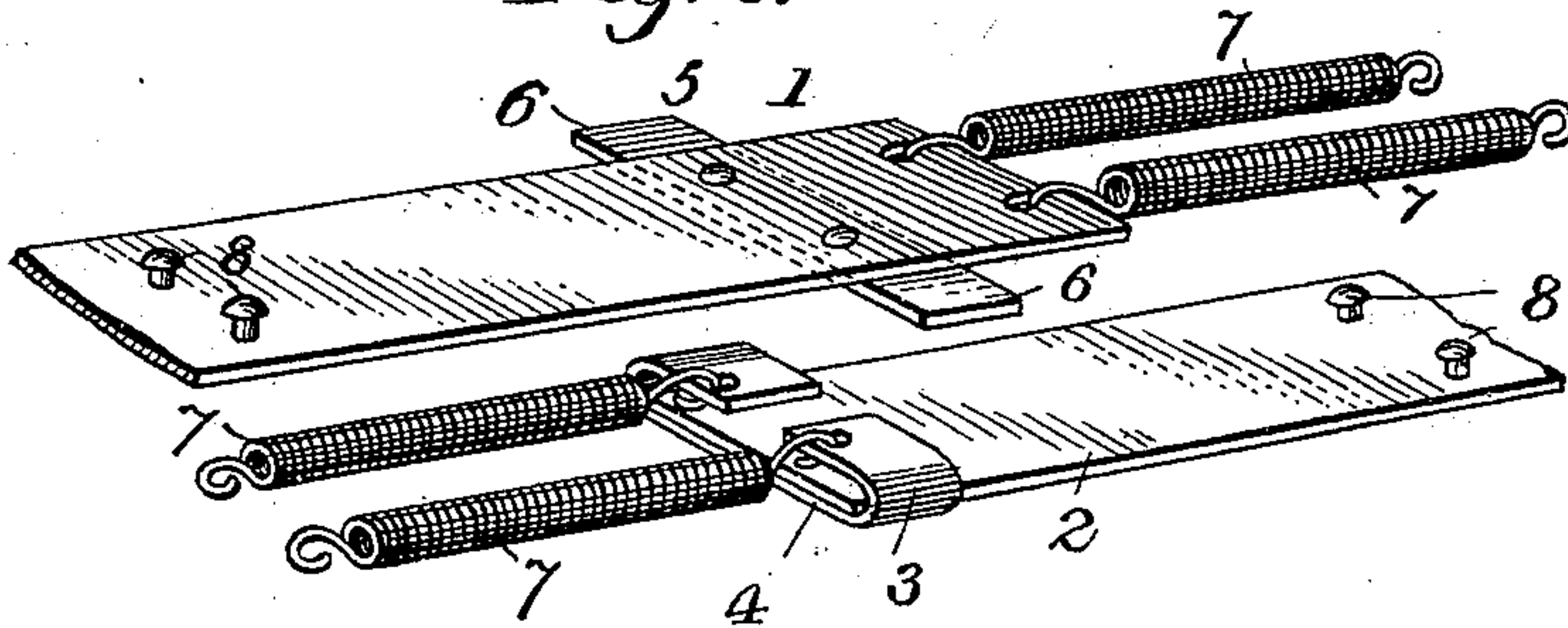


Fig. 3.

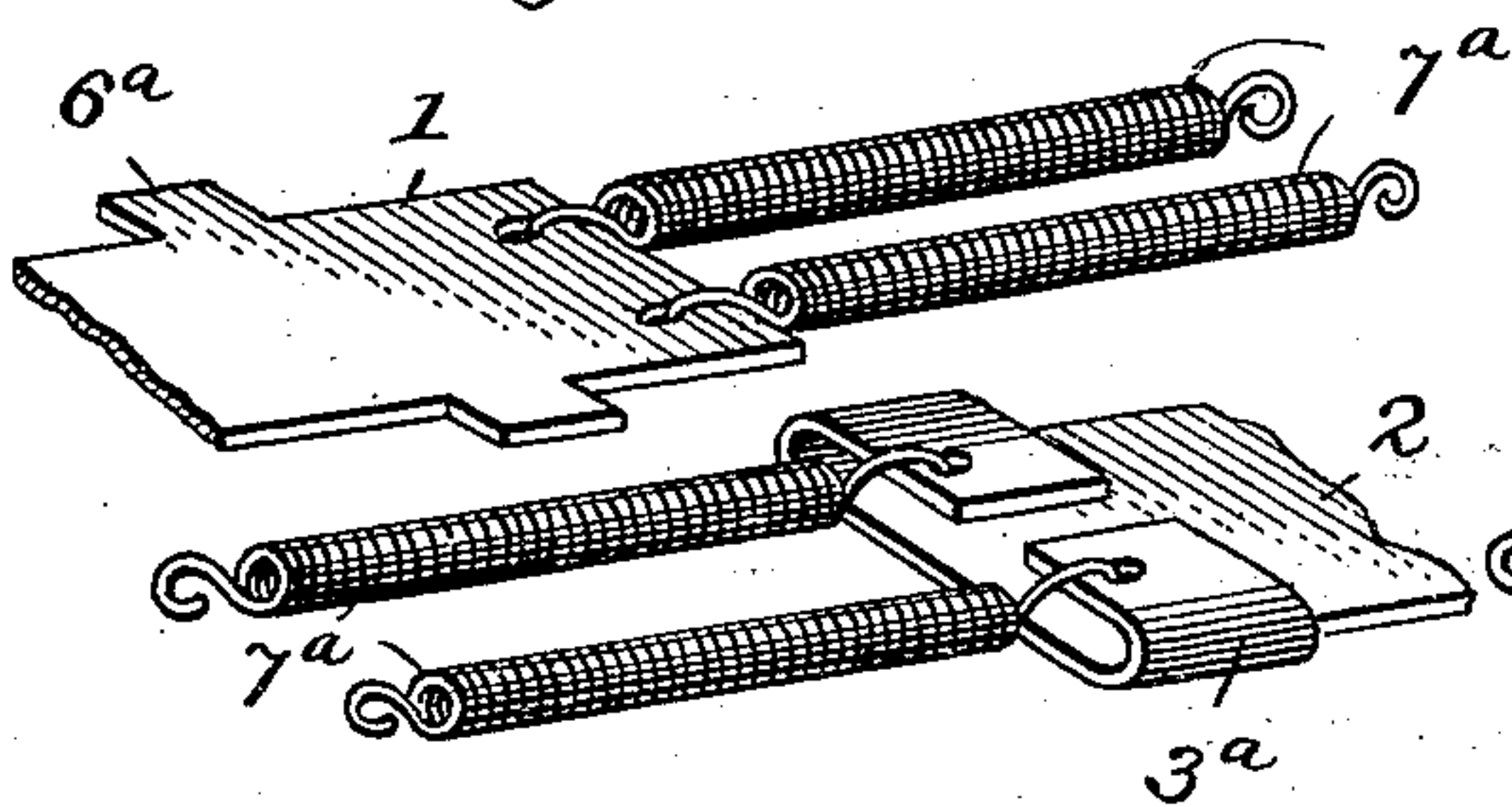
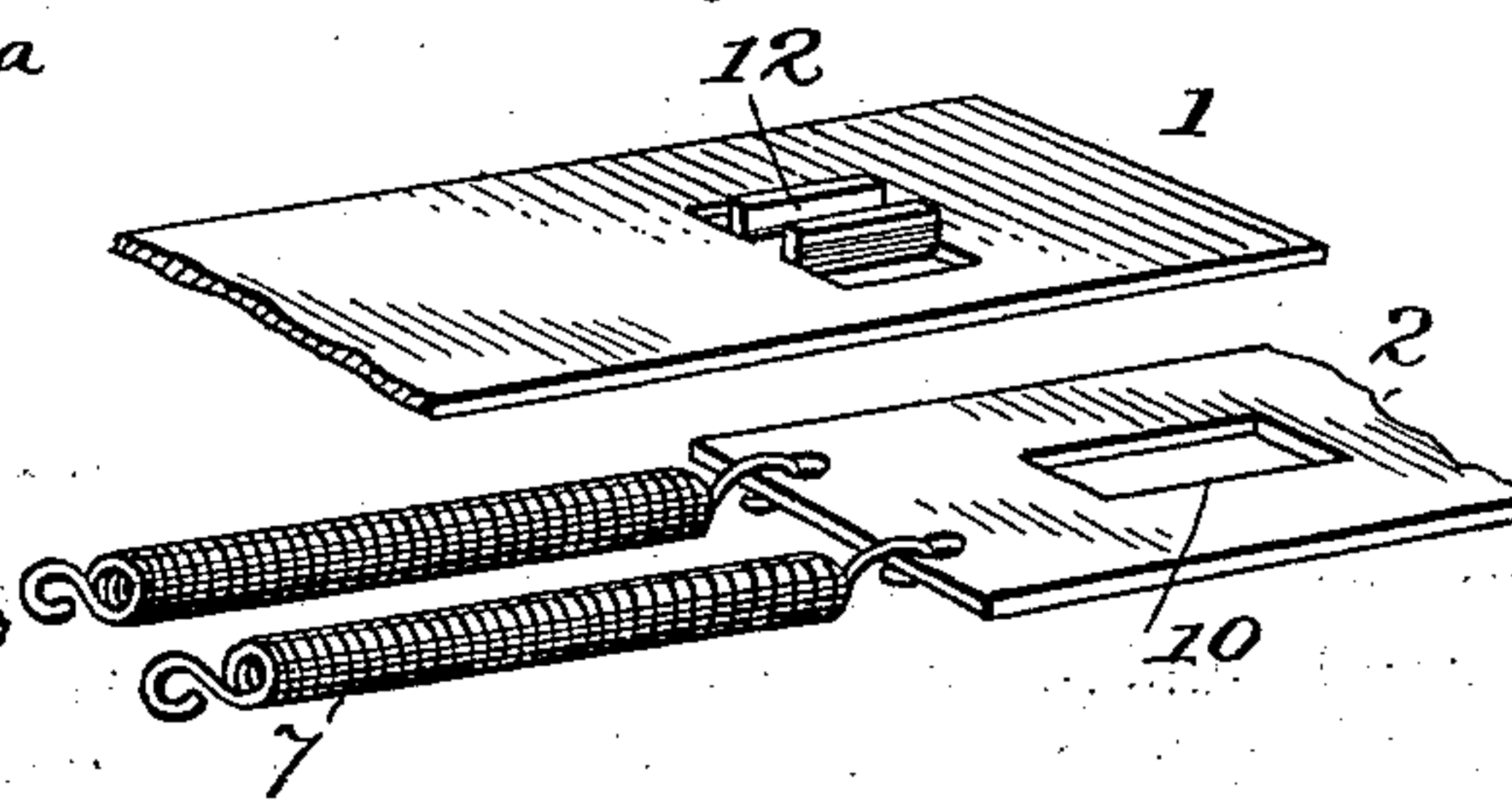


Fig. 4.



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# UNITED STATES PATENT OFFICE.

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## BARREL-HOOP.

SPECIFICATION forming part of Letters Patent No. 612,030, dated October 11, 1898.

Application filed June 2, 1898. Serial No. 682,385. (No model.)

*To all whom it may concern:*

Be it known that I, BAULDA HAYWOOD GARDNER, a citizen of the United States, residing at Shreveport, in the parish of Caddo and State of Louisiana, have invented certain new and useful Improvements in Barrel-Hoops, of which the following is a specification.

This invention relates to certain new and useful improvements in hoops for barrels, casks, cisterns, and the like, having for its object to provide a hoop which will automatically adapt itself to the barrel under varying conditions; and with this object in view the invention consists in the novel construction, combination, and arrangement of parts hereinafter more particularly pointed out.

In the accompanying drawings, forming a part of this specification, and in which like letters and figures of reference indicate corresponding parts, Figure 1 is a side elevation of a portion of a cistern with one embodiment of the invention applied thereto. Fig. 2 is an enlarged detail view of the ends of the hoop disconnected, parts being broken away. Figs. 3 and 4 are similar views of modifications.

Briefly stated, the invention comprises a hoop adapted to surround a barrel, cask, cistern, or the like, the ends of the hoop being overlapped and connected by means of one or more springs, which serve to draw the hoop into close conformity with the barrel, &c., to hold the staves thereof together, and at the same time permitting the expansion of the hoop when rendered necessary by the swelling of the barrel. Means are also provided for limiting the separation of the ends of the hoop and for preventing relative lateral and radial movement thereof.

Referring more particularly to the drawings, A designates the hoop, formed, preferably, of a bent strip of flexible metal of the desired length, thickness, and width to suit varying conditions. This hoop is adapted to surround a barrel B, and one of its ends 1 is adapted to overlap or be overlapped by the opposite end 2 of the hoop, which end is provided with a guide 3, which receives and permits the free longitudinal movement of the said end 1. The guide 3 may be formed in various ways; but in the interest of cheapness and simplicity it is constituted of a strip

4, extending transversely across the hoop, near the end 2 thereof, and secured to the hoop in any suitable manner, preferably by riveting, as shown. At its opposite ends the guide-strip 4 is turned upwardly and inwardly to embrace the edges and outer face of the end 1 of the hoop and prevent the separation of said end or the lateral movement thereof with relation to the end 2.

Extending transversely across the hoop, near the end 1 thereof, and secured to the hoop, preferably by rivets, is a strip 5, the ends of which project beyond the opposite side edges of the hoop and constitute stops 6, which when the ends of the hoop are overlapped are adapted to make contact with one edge of the guide-strip 4 and prevent the expansion of the hoop.

In order to cause the contraction of the hoop when shrinking of the band takes place, one or more springs 7 are employed to connect the ends of the hoop. These springs 7 are connected at one end to studs 8, projecting from the body of the hoop, near one end thereof, and connected at their opposite ends to the other end of the hoop, the tendency of the springs being at all times to draw the two ends together and maintain the hoop in close contact with the outer surface of the barrel.

In the modification of the invention illustrated in Fig. 3 the guides 3<sup>a</sup> are formed integral with the end 2 of the hoop, and the stops 6 consist of lugs 6<sup>a</sup>, formed integral with the hoop, near the end 1 thereof, and projecting from the side edges of the hoop. In this form of the invention two sets of springs 7<sup>a</sup> are employed, one set connecting the end 1 of the hoop with the end 2 and the second set connecting the end 2 with the end 1.

In the embodiment of the invention illustrated in Fig. 4 the end 2 of the hoop is provided with a slot 10, through which project and are adapted to move longitudinally one or more lugs 12, two being shown, which lugs are cut and turned up from the body of the hoop, near the opposite end thereof.

From the above it will be apparent that a simple, cheap, and effective hoop is produced which may be readily adjusted upon a barrel, cask, &c., and which will automatically compensate for any shrinking or swelling thereof and maintain the barrel intact.

Without limiting myself to the precise construction and arrangement of the parts shown and described, what I claim is—

- 5 1. A hoop for barrels, cisterns or the like having spring-connected overlapping ends and a stop for limiting the relative movement of the ends, substantially as described.
2. A hoop for barrels, cisterns or the like comprising spring-connected overlapping  
10 ends and a guide for preventing the lateral movement of said ends relative to each other, substantially as described.
3. A hoop for barrels, cisterns or the like comprising spring-connected ends, a stop de-  
15 vice carried by one of the ends for limiting the separation thereof from the other, and a guide carried upon said other end for pre-

venting the relative lateral or radial movement of the ends relative to each other, substantially as described. 20

4. The combination of a hoop, a spring connecting the ends of the hoop, a guide upon one end of the hoop, and a stop device upon the opposite end thereof adapted to engage with an edge of the guide, substantially as 25 described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

BAULDA HAYWOOD GARDNER.

Witnesses:

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J. L. GILLILAND.