

(No Model.)

A. R. SPROUT.  
HOOP FASTENER.

No. 293,919.

Patented Feb. 19, 1884.

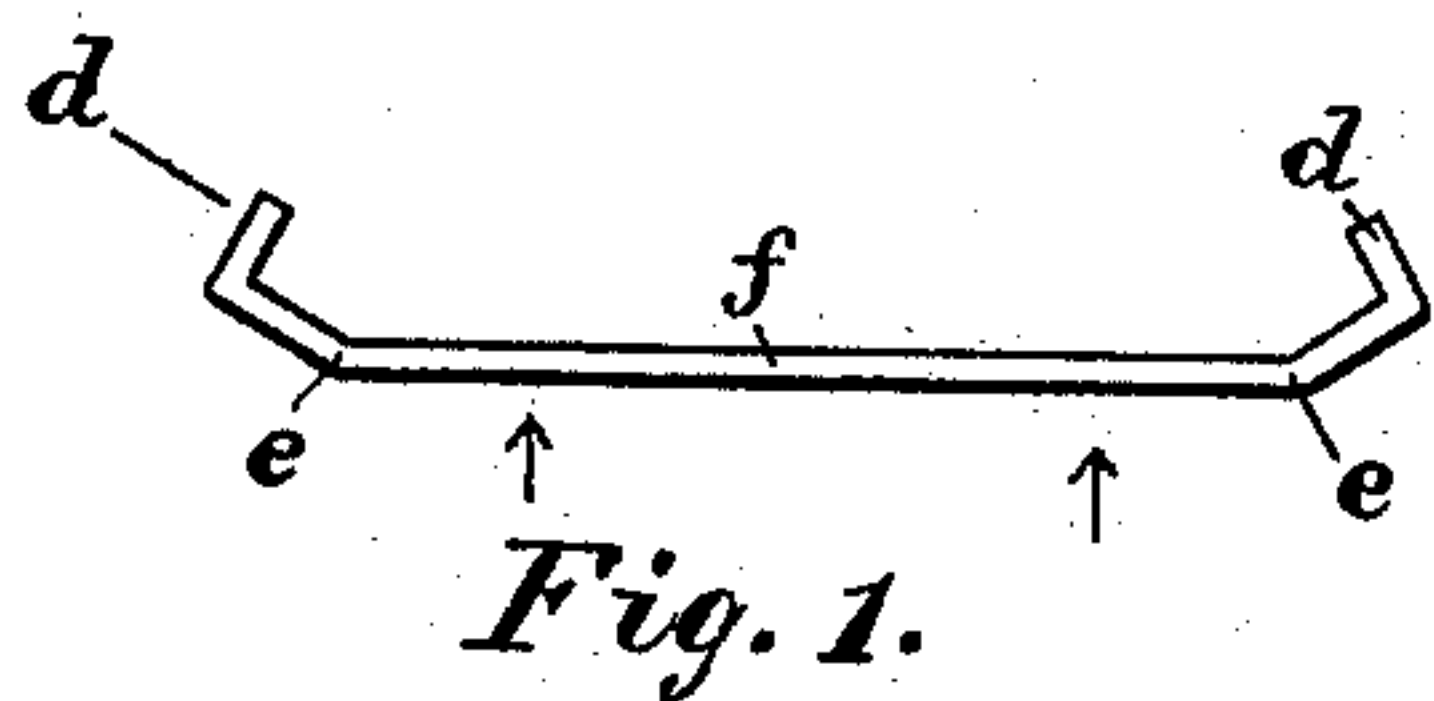


Fig. 1.



Fig. 2.



Fig. 3.



Fig. 4.

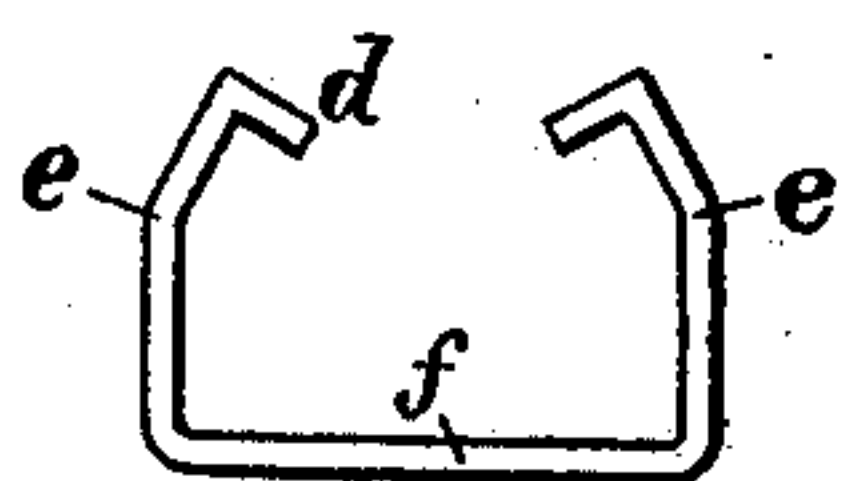


Fig. 5.

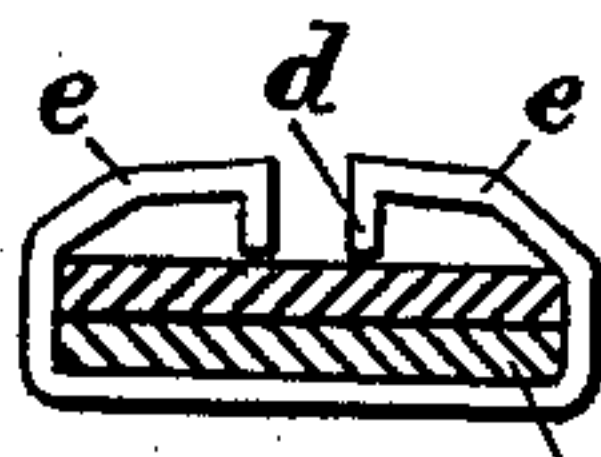


Fig. 6.

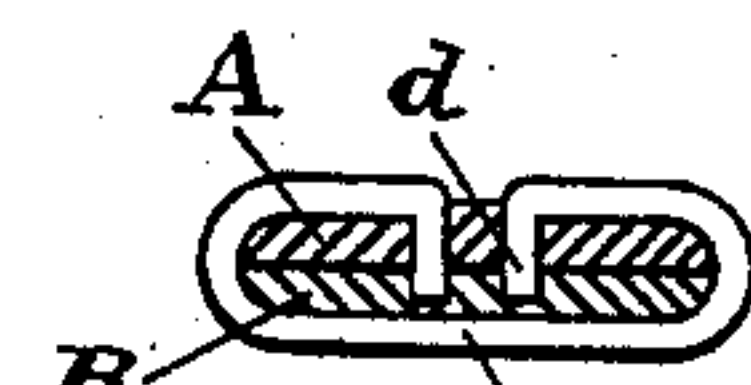


Fig. 7.

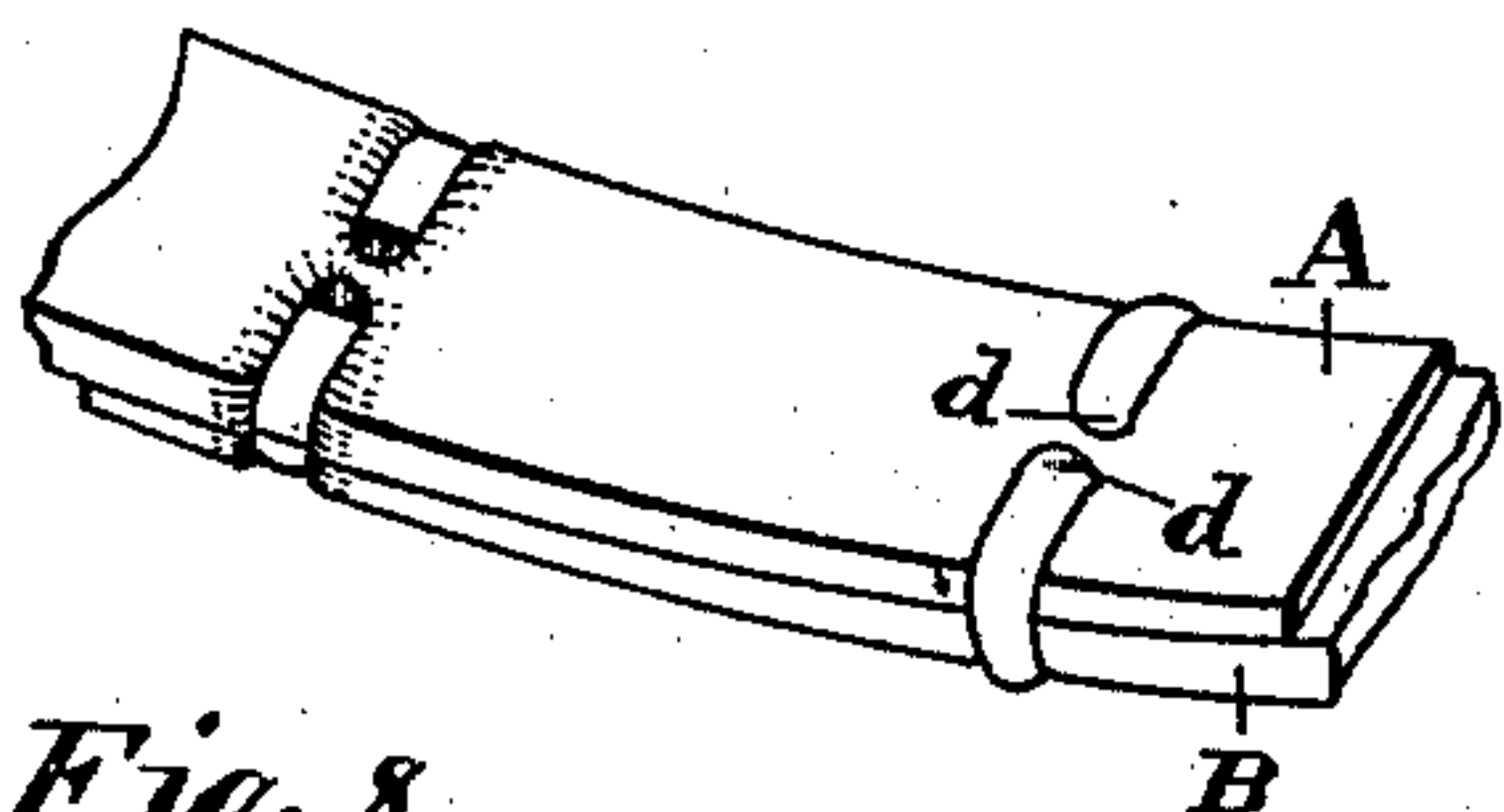


Fig. 8.

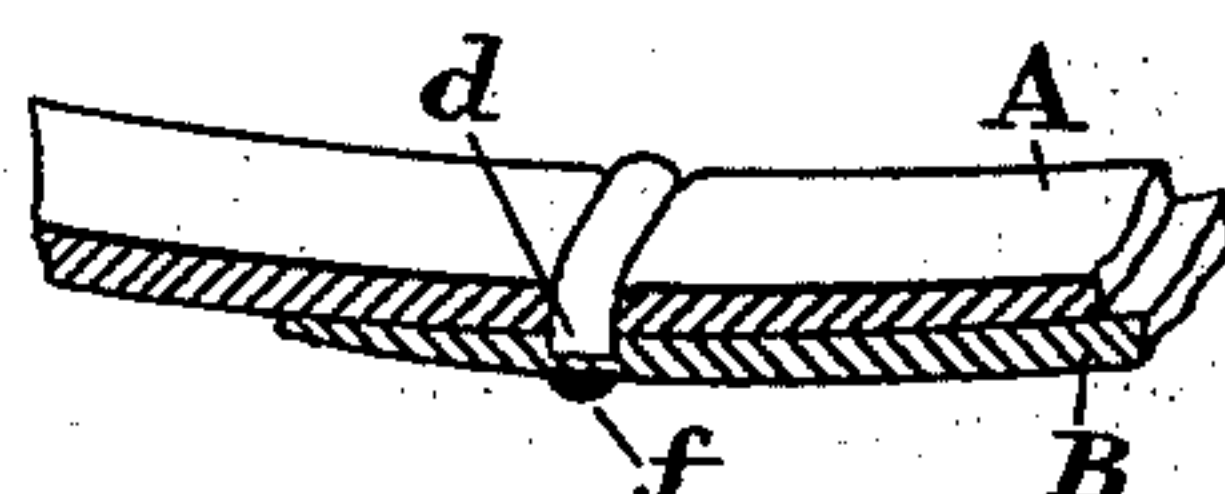


Fig. 9.

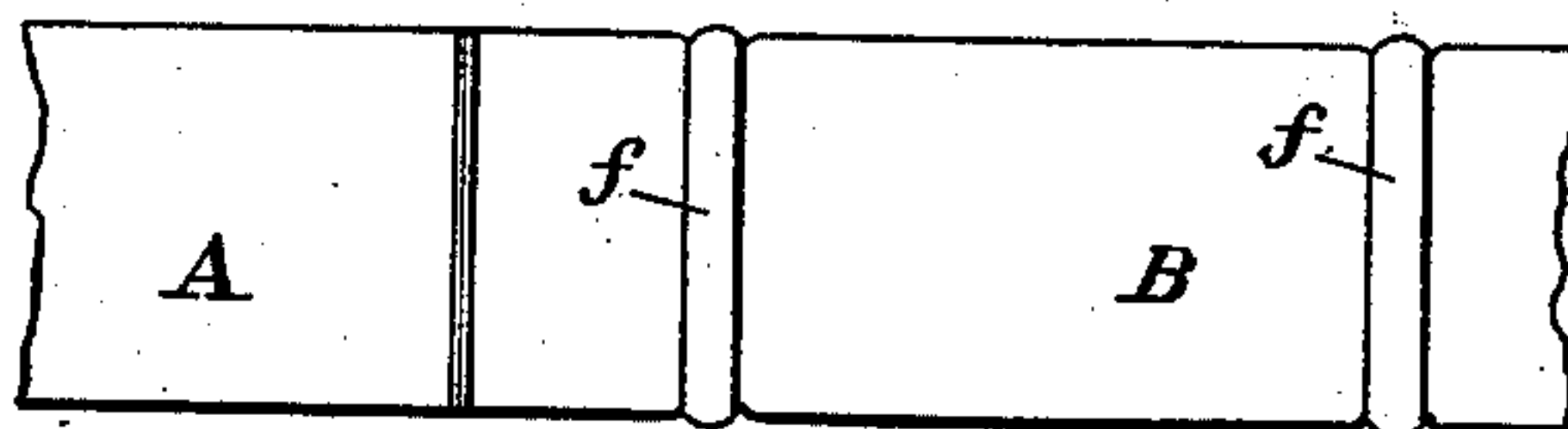


Fig. 10.

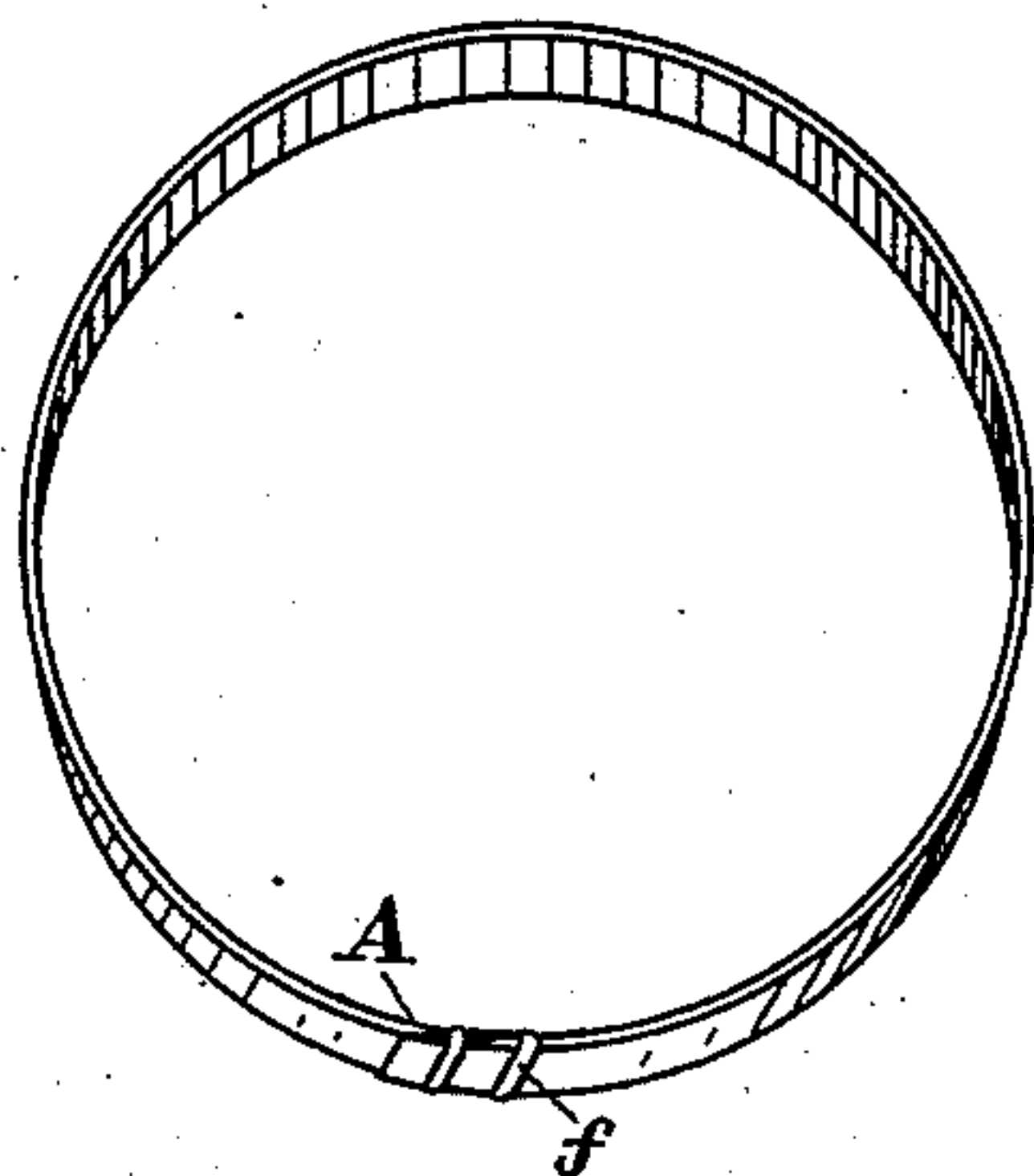


Fig. 11.

Witnesses:  
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# UNITED STATES PATENT OFFICE.

ASA RENSSELAER SPROUT, OF PICTURE ROCKS, PENNSYLVANIA.

## HOOP-FASTENER.

SPECIFICATION forming part of Letters Patent No. 293,919, dated February 19, 1884.

Application filed January 7, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, A. RENSSELAER SPROUT, a citizen of the United States, residing at Picture Rocks, in the county of Lycoming and State of Pennsylvania, have invented certain new and useful Improvements in Hoop-Fasteners, of which the following is a specification.

This invention relates to an improved metal fastener for wood hoops, such as are used for barrels and kegs and for other purposes.

In the accompanying drawings, which illustrate the invention, Figure 1 is a view of the metal fastener, showing the shape of the article when it is put upon the market for sale. Figs. 2, 3, and 4 are cross-sections showing the shape of the metal. Figs. 5, 6, and 7 are views showing the several forms the metal fastener assumes in following the steps taken for its attachment to the hoop. Fig. 8 is a view of the lapped ends of a wood hoop at the inner side, illustrating the compressed groove produced by embedding the metal fastener in the wood, and showing also the metal fastener. Fig. 9 is a longitudinal section of the lapped ends of a hoop, showing the end of the fastener penetrated through both lapped ends of the wood in a manner similar to a pin or rivet. Fig. 10 is an outer side view of the lapped ends of the hoop, showing the metal fastener. Fig. 11 is a view of a hoop having its ends secured by the fastener.

The fastener shown in Fig. 1 may be made of wire or flexible metal—such as wrought-iron, steel, or brass—of any desired shape in cross-section; but I prefer half-round wire. The wire may also, by preference, have on its flat side feather-edges *c*, as shown in Fig. 2, which are more readily embedded in the wood of the hoop. Instead of this, the inner side of the wire may be slightly concaved in the lengthwise direction, as indicated by the letter *c'* in Fig. 3. This construction produces prominent edges well adapted to readily embed in the wood.

The method of attaching the metal fastener consists in compressing the fastener into the sides and edges of the wood, so that the fastener shall be embedded in a groove formed

all around the hoop, thereby giving it a superior bite or grip, and finally in securing the ends of the fastener by entering them endwise through both the lapped ends of the wood, whereby the penetrating ends serve as pins or rivets.

As shown in Fig. 1, the fastener has a short portion, *d*, at each end turned at nearly a right angle, and these ends *d* are designed to enter or penetrate the two lapped ends A B of the wood hoop on its inner side. Near the right-angled ends a bend, *e*, is made, which serves to incline the two ends *d* toward each other. The central part, *f*, of the fastener, embraced between the two darts, will, when attached, extend across one of the sides of the hoop, while at the points indicated by the darts the fastener will be bent, as shown in Fig. 5, when wrapped around the hoop-edges. When this has been done in applying the fastener, and the extremity of the two right-angled ends *d* are brought almost or quite in contact with the surface of the hoop, as shown in Fig. 6, it will then be seen that the bend at *e* has the effect to direct the right-angled ends nearly straight toward the wood; thereby, when a blow shall be given these ends *d*, or pressure is applied to them, they will enter or penetrate endwise into and through both lapped ends of the wood, as shown in Figs. 7 and 9. When thus attached, the ends of the fasteners, acting as pins or rivets, will prevent the lapped ends of the hoop from slipping apart.

Having described my invention, I claim and desire to secure by Letters Patent of the United States—

As a new article of manufacture, the metal fastener for hoops, composed of wire or flexible metal, having a short portion, *d*, at each end turned at nearly a right angle, and a bend, *e*, near the right-angled ends, whereby the latter are inclined toward each other, as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

ASA RENSSELAER SPROUT.

Witnesses:

J. J. CROCKER,

ROBT. A. HOUSEL.