

A. C. STONE.
JOINT FOR PIN TONGUES.
APPLICATION FILED OCT. 9, 1908.

964,330.

Patented July 12, 1910.

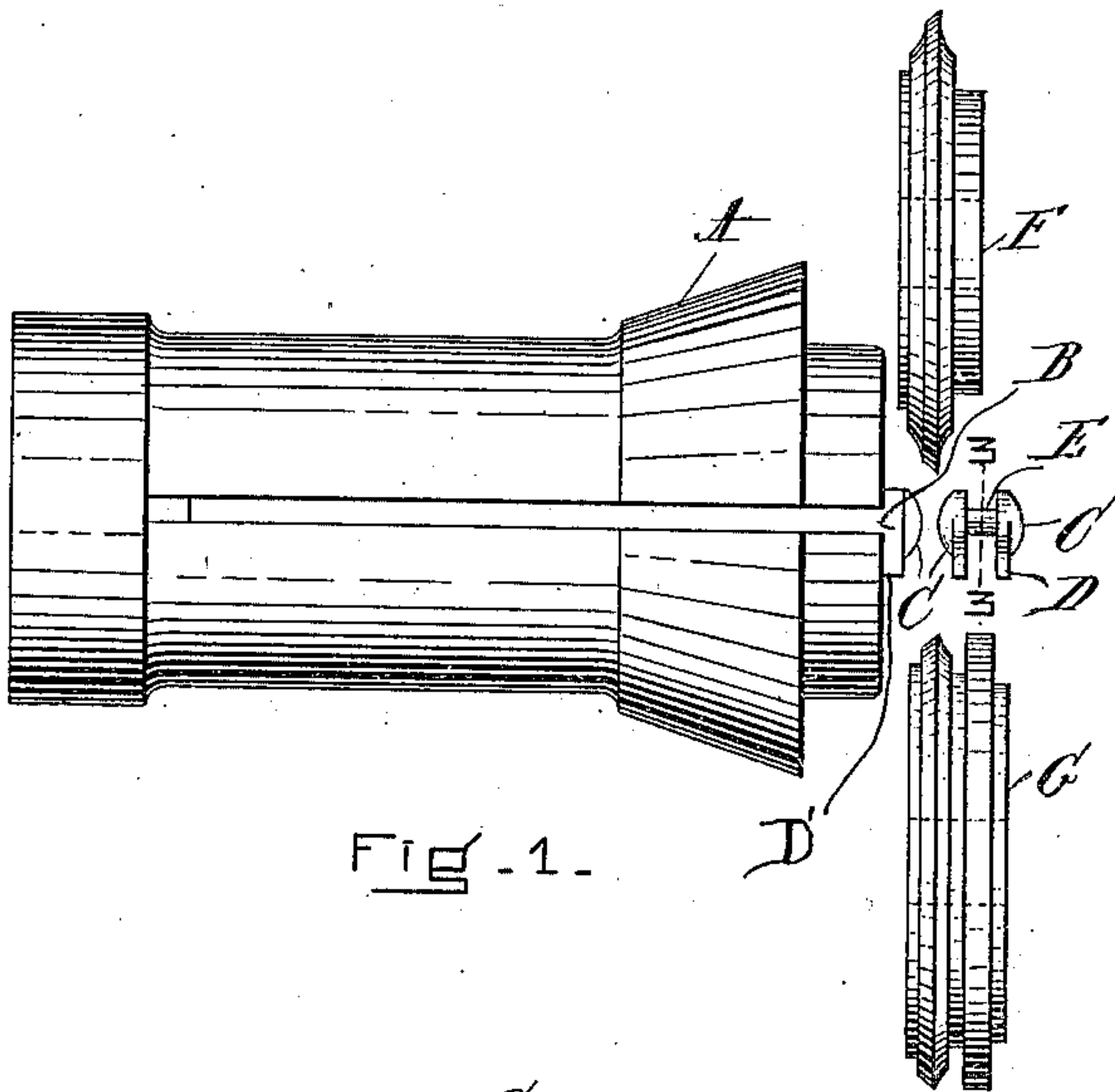


FIG. 1.

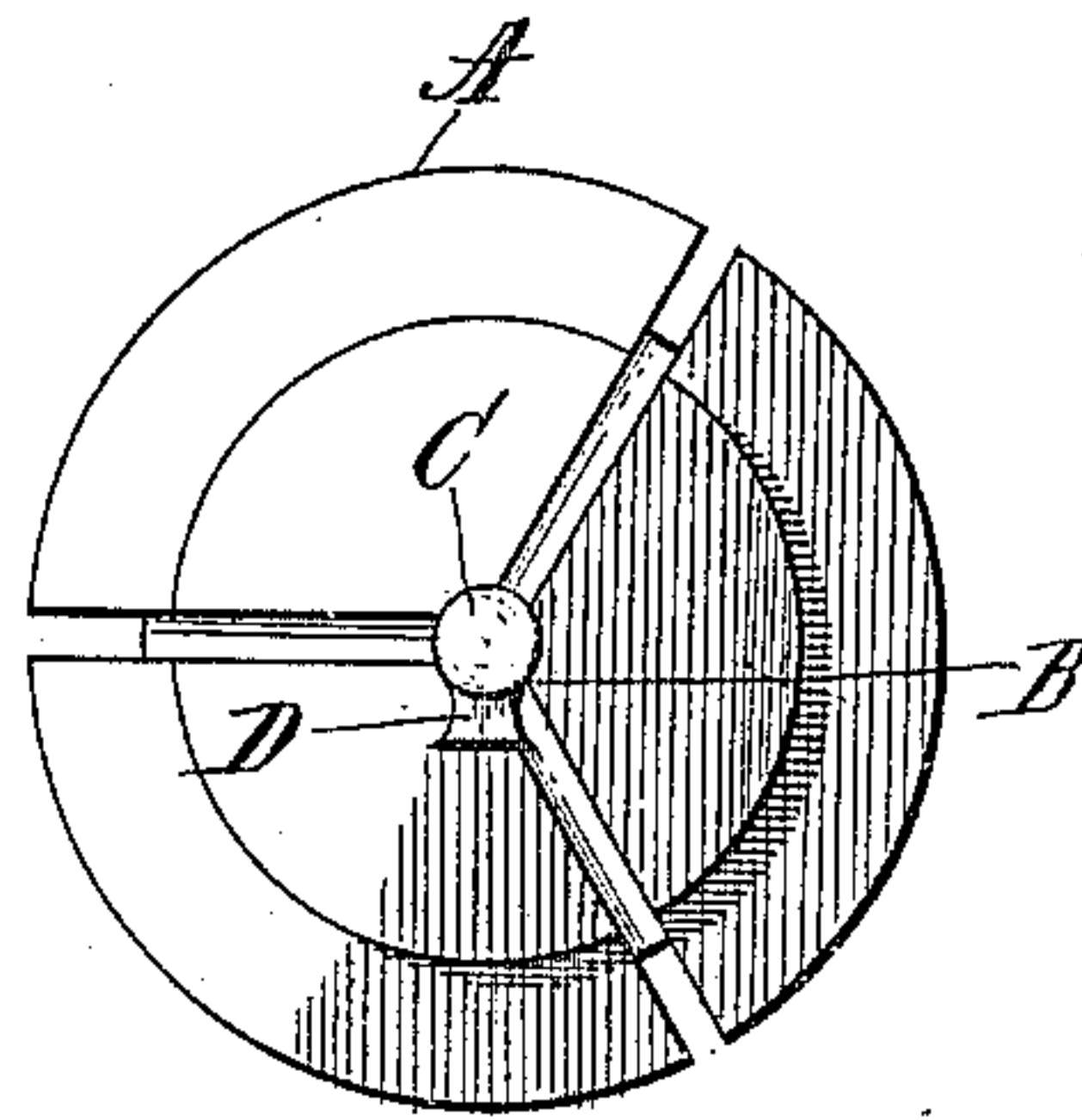


FIG. 2.

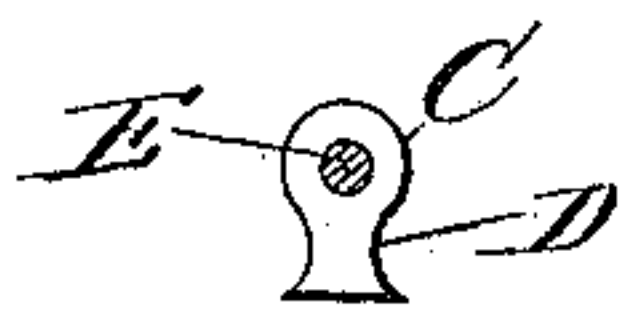


FIG. 3.

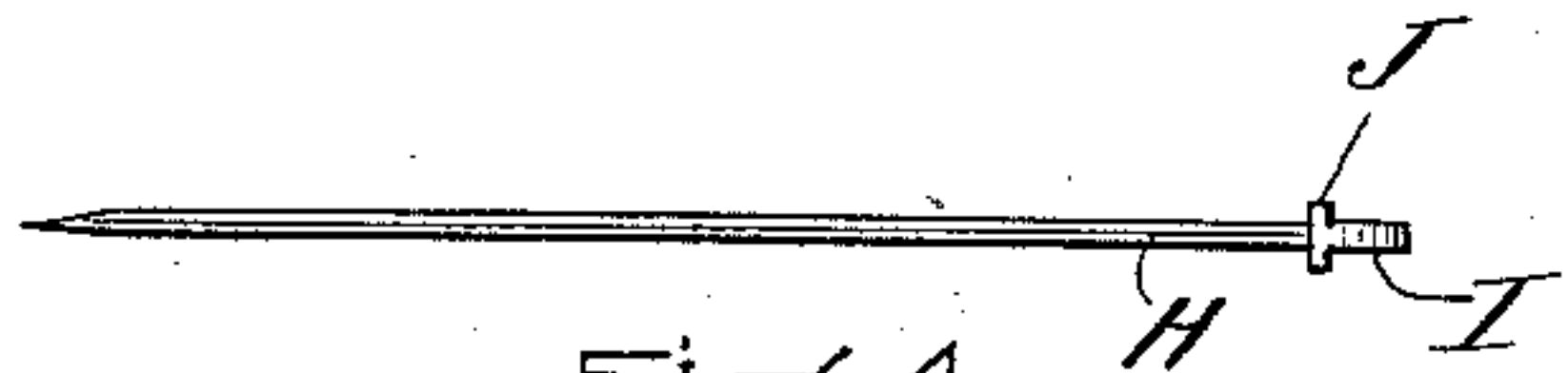


FIG. 4.

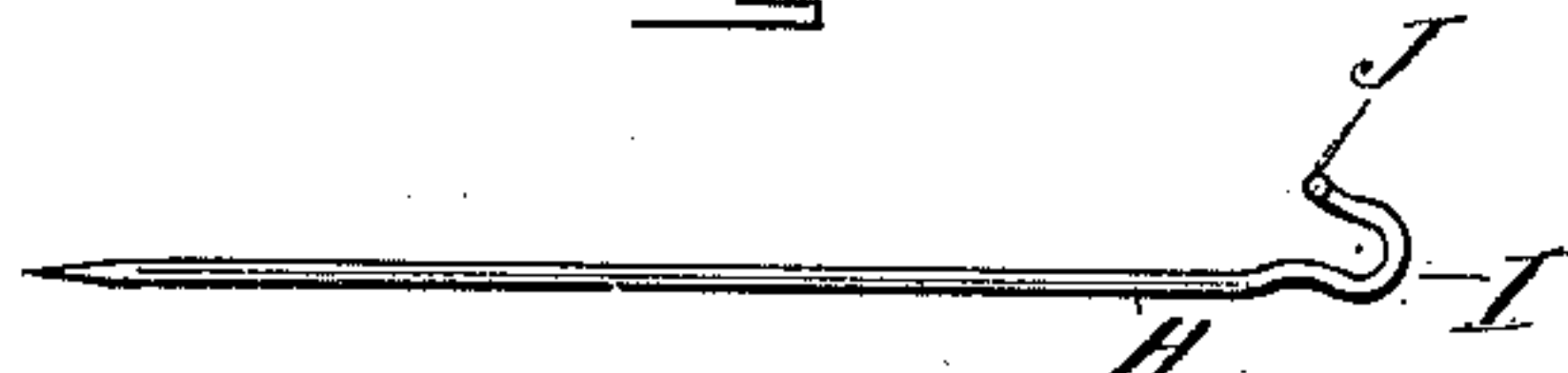


FIG. 5.

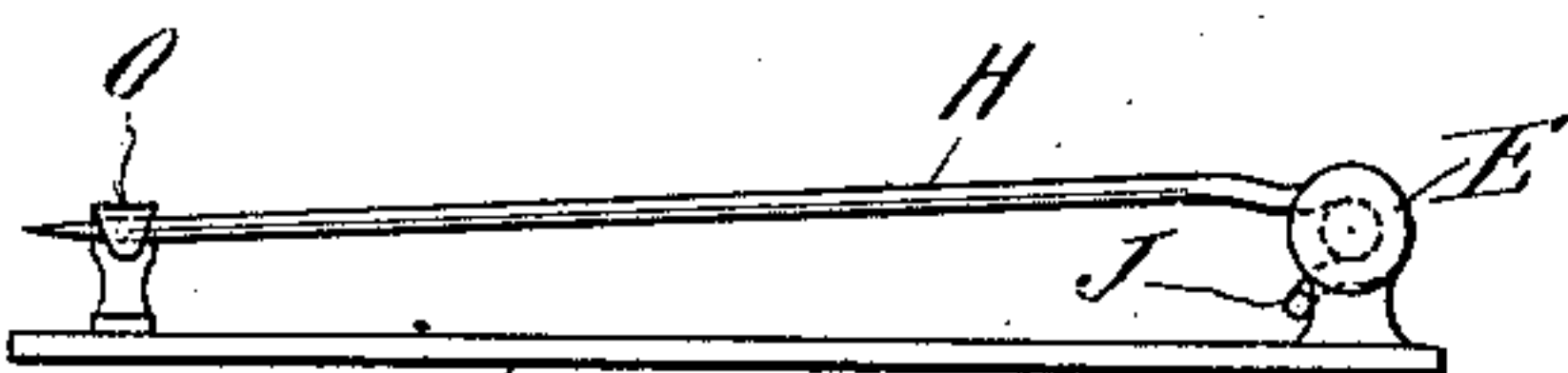


FIG. 6.

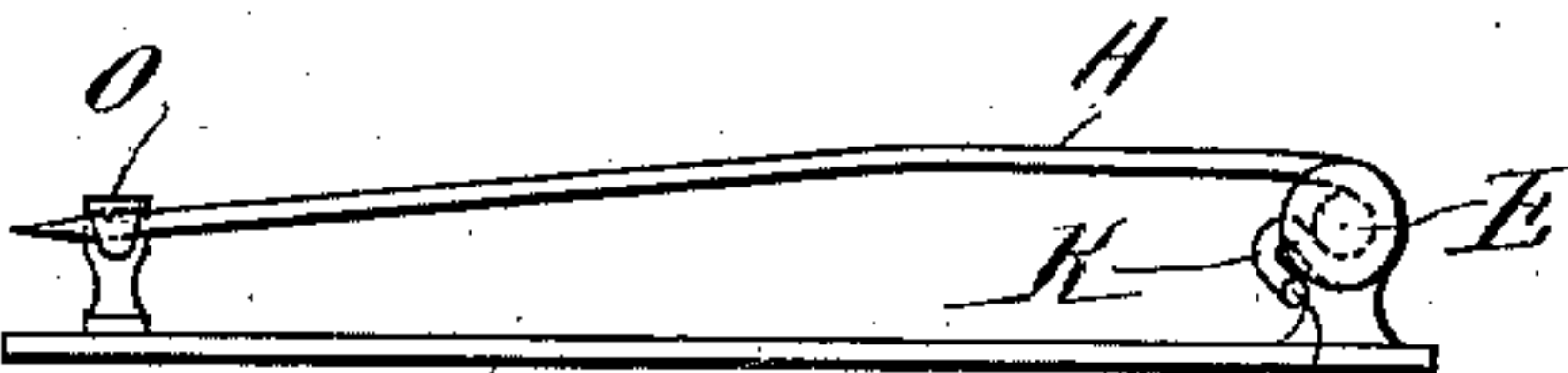


FIG. 7.

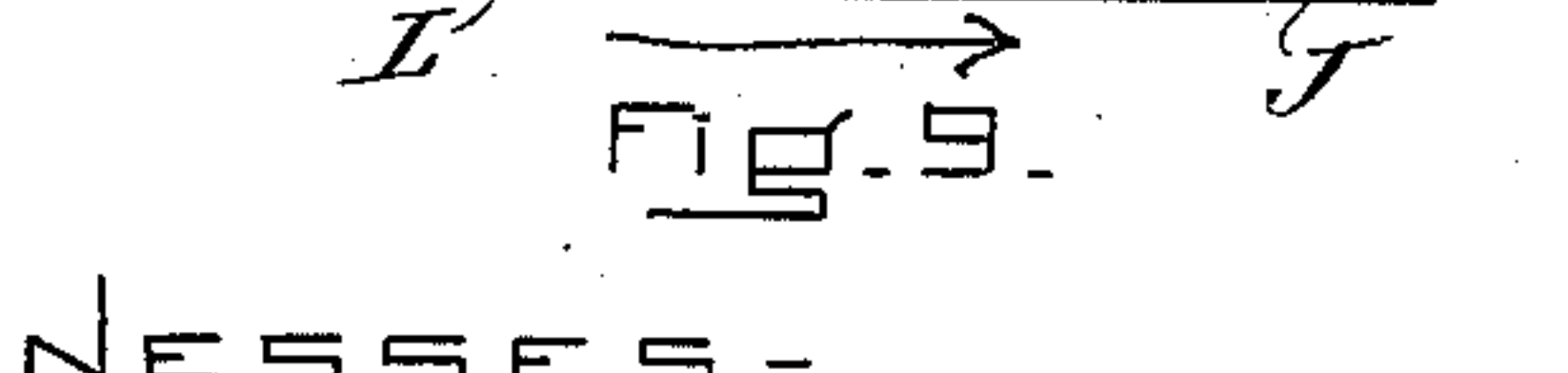


FIG. 8.



FIG. 9.

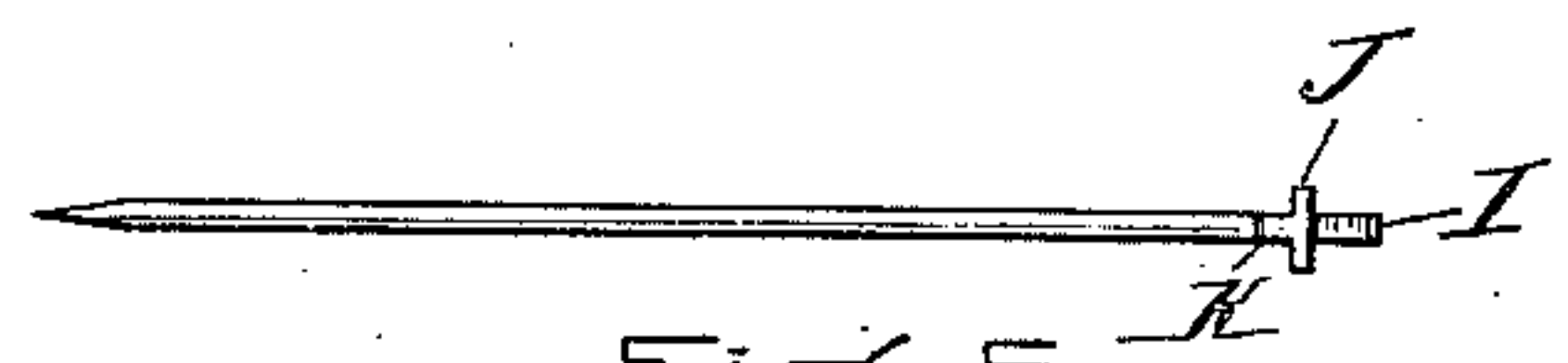


FIG. 10.



FIG. 11.

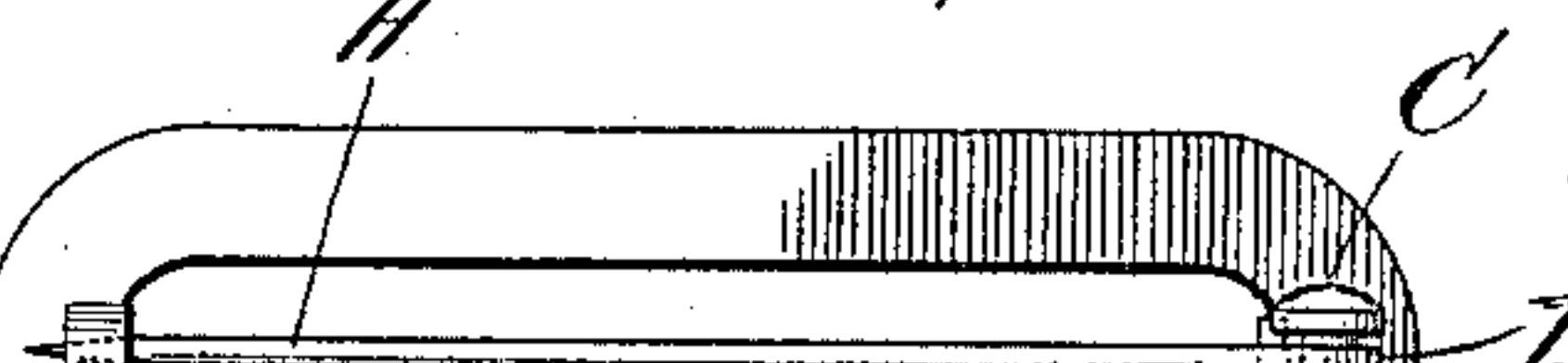


FIG. 12.

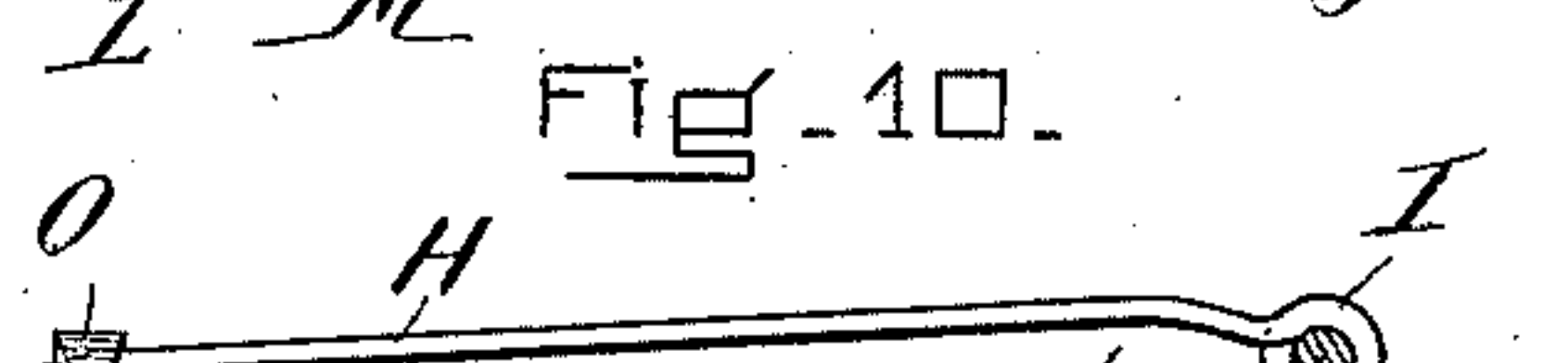


FIG. 13.

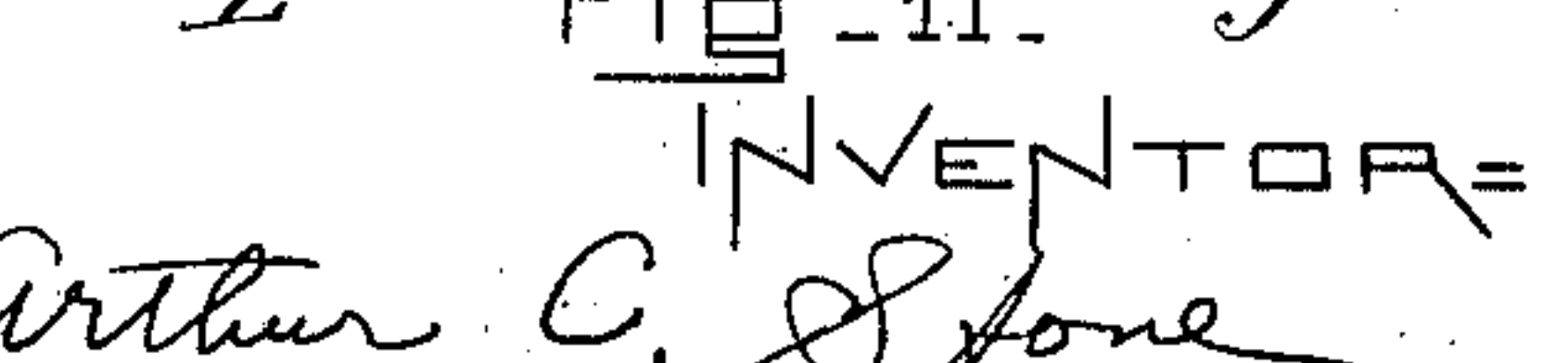


FIG. 14.

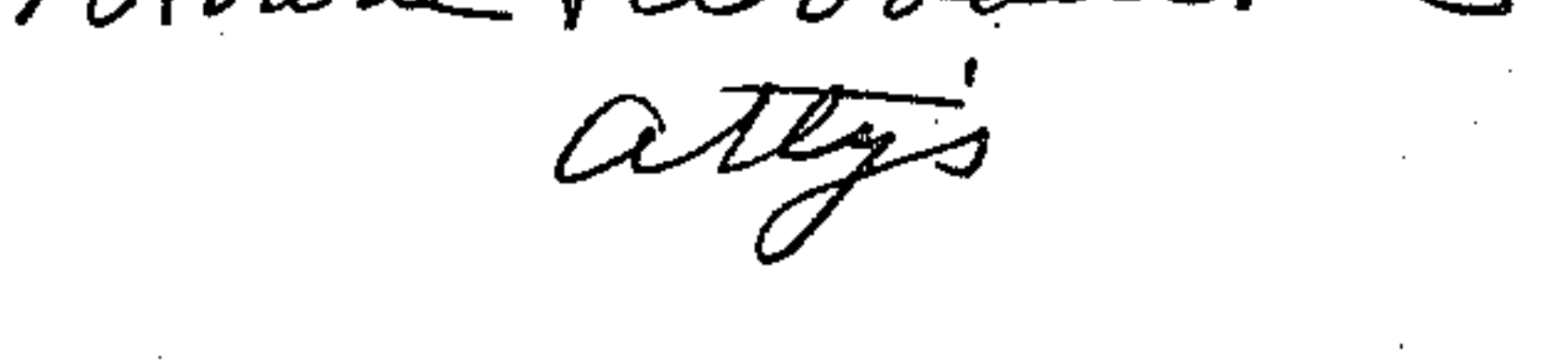


FIG. 15.

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UNITED STATES PATENT OFFICE.

ARTHUR C. STONE, OF PROVIDENCE, RHODE ISLAND, ASSIGNOR TO THE METAL PRODUCTS CORPORATION, OF PROVIDENCE, RHODE ISLAND.

JOINT FOR PIN-TONGUES.

964,330.

Specification of Letters Patent.

Patented July 12, 1910.

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To all whom it may concern:

Be it known that I, ARTHUR C. STONE, a citizen of the United States, and a resident of Providence, in the county of Providence and State of Rhode Island, have invented a new and useful Improvement in Joints for Pin-Tongues, of which the following is a specification.

My invention relates to joints for pin-tongues and the object thereof is to improve and simplify the construction and to cheapen the cost of manufacture of such joints.

One of the chief defects in pin-tongue joints, as used to-day, is the ease whereby a slight lateral pressure of the pin will separate the wings of the post and thereby loosen the joint and allow the pin to fall out. By my invention this defect is overcome.

The present invention consists of a one-piece post preferably formed from a rod by rotating cutters and arranged to be directly applied to the brooch, belt pin, etc., without the interposition of a base. Coöperating with the post is a pin having a curved end portion so arranged that it may be snapped over the pivot of the post and held in position thereon by its own elasticity. The end of the curved portion of the pin may be provided with a lateral extension, the function of which is to engage with the lower end of the post and thereby serve as a stop, so that the pointed end of the pin may be held in its clasp by the elasticity of the pin.

In the drawings which accompany and form a part of this specification, Figure 1 is a plan view representing one means for producing my improved joint post and Fig. 2 is an end view of the chuck hereinafter referred to showing the shape of the rod from which said posts are cut. Fig. 3 is a section taken on the line 3—3 of Fig. 1. Fig. 4 is a plan and Fig. 5 a side view of one form of pin. Fig. 6 is a plan and Fig. 7 is a side view of a modification of said pin. Fig. 8 is a side view showing the pin illustrated in Fig. 4 mounted on a brooch. Fig. 9 is a side view showing the pin illustrated in Fig. 6 mounted on a brooch. Fig. 10 is a plan view of the pin shown in Fig. 8. Fig. 11 is a section view of the pin shown in Fig. 10.

In the figures, A represents a chuck, of any suitable form, carrying the rod B, which, as shown, is of irregular shape, one portion thereof being approximately circu-

lar in section, as shown at C, and terminating in the straight portion D'. When such a rod is rotated against the forming tool G and afterward against the cut-off tool F, a pin-tongue post, such as shown in side view in Fig. 1 and in section in Fig. 3, will be formed and cut from the rod B. This pin-tongue post will, as shown, consist of two parallel wings D, formed from the straight portion D' of the rod B and united by a pivot E integral therewith, and the wings will terminate in ears C, having outwardly extending spherical surfaces, the centers of which will lie on the center line of the pivot E.

A one-piece post formed as above may be secured to the brooch, belt pin, etc., in any suitable manner, as for example, by soldering the same thereto. The pins H are provided with a curved end portion I, so shaped that the pin may be snapped over the pivot and held thereto by the spring of the metal of which the pin is formed. The end of the curved portion of the pin may be provided with the lateral extension J.

To secure the pin on the pin-post, the pin-point is inserted through the opening between the pivot E and the brooch L in the direction indicated by the arrow in Figs. 8 and 9 until the curved end portion of the pin comes in contact with the pivot, whereupon said end portion is sprung over the pivot and the pin then rotated through an arc of almost one hundred and eighty degrees. It will be found, however, that before the pin has described a complete semicircle and when the point thereof is elevated slightly above the clasp O, the lateral extension J will contact with the lower portion of the wings D of the post, so that in order to insert the end of the pin under said clasp the pin must be forced downward against the natural spring of the metal forming the same. In this operation the lateral extension J acts as the stop. In the form of pin shown in Figs. 6 and 7, the bent-over portion K will permit the clasp to more firmly hold the pin, inasmuch as the lateral extension J will contact with the lower portion of the wings of the post as the pin is being closed and its end brought under the clasp O before such contact would be effected by the form of pin shown in Figs. 4 and 5.

After a pin has been sprung over the pivot of the post it will be found impossible to re-

move the same therefrom by ordinary usage, even when the pin is rotated about the pivot E through arc of one hundred and eighty degrees from the position shown in Fig. 8, and it will be obvious that the lateral extension J will prevent the forcing of the pin from the post in the direction of the arrow shown in said Fig. 8. Inasmuch as the post is formed in one piece, it will be clear that no amount of lateral pressure will separate the joint.

Quite frequently the jewelry on which pin-tongue joints are employed has in general the form shown in Fig. 10, the inner portion of the base or mounting of the brooch or belt pin being cut away. It will be seen, therefore, that with such a piece of jewelry it would be necessary to provide the end of the pin with a lateral extension J, as otherwise no stop would be provided whereby to bring into play the elasticity or spring of the pin for holding the same in the clasp.

As indicated in Figs. 8, 9 and 11, the rounded portion I of the pin preferably is flush with the top of the pin-post.

Although for the purpose of more clearly disclosing my invention I have described with some particularity the embodiments thereof shown in the accompanying drawings and one method of producing the same, it will be understood that I do not limit myself except as required by the scope of the appended claim either to the exact details of construction or to the details of the method, inasmuch as many modifications may be made therein without departing from the spirit of my invention.

I claim:

A one-piece pin tongue post having two solid supporting walls open at the bottom with parallel inside faces and a solid pivot portion of circular section uniting said walls.

In testimony whereof, I have hereunto subscribed my name this 3rd day of Oct. 1908.

ARTHUR C. STONE.

Witnesses:

E. B. TOMLINSON,
GEO. K. WOODWORTH.