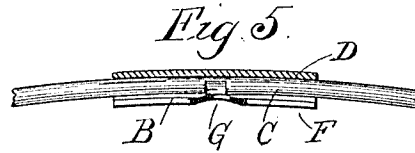
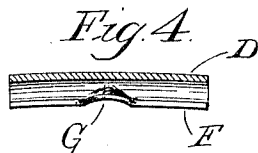
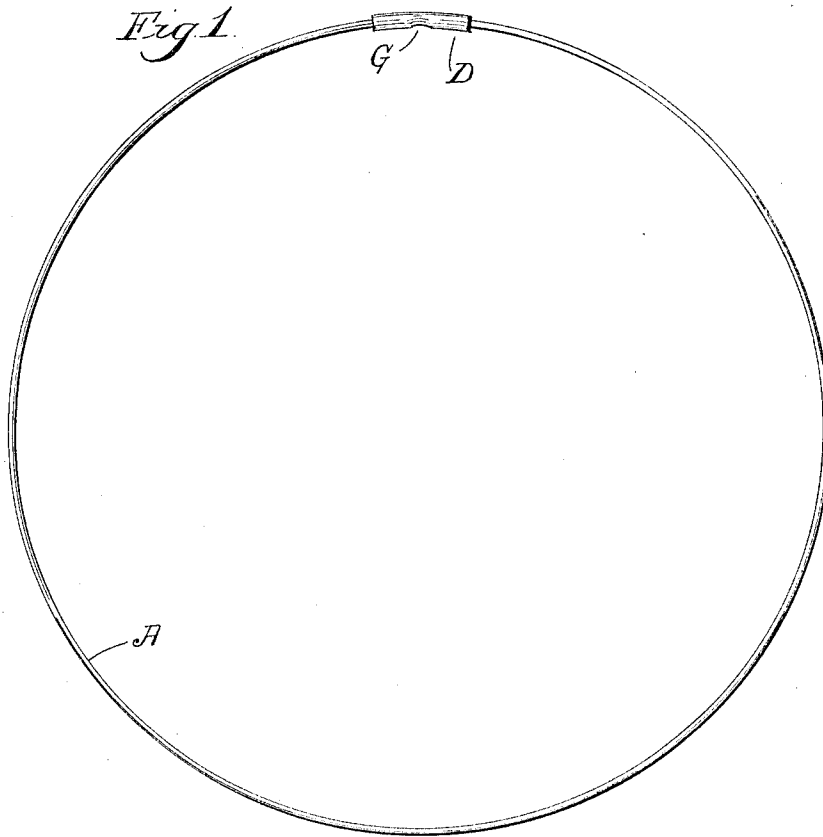


G. B. SHERMAN.
HAT WIRE CONNECTOR.
APPLICATION FILED NOV. 23, 1907.

1,040,790.

Patented Oct. 8, 1912.



WITNESSES:
J. S. Coleman
M. Olive Williams

INVENTOR.
George B. Sherman
BY Beards Fisher,
ATTORNEYS.

UNITED STATES PATENT OFFICE.

GEORGE B. SHERMAN, OF DANBURY, CONNECTICUT.

HAT-WIRE CONNECTOR.

1,040,790.

Specification of Letters Patent.

Patented Oct. 8, 1912.

Application filed November 23, 1907. Serial No. 403,556.

To all whom it may concern:

Be it known that I, GEORGE B. SHERMAN, of the town of Danbury, county of Fairfield, State of Connecticut, have invented
5 new and useful Improvements in Hat-Wire Connectors, of which the following is a full, clear, and exact description when taken in connection with the accompanying drawings, which form a part thereof.

10 This invention relates to an improved device for connecting the ends of a hat wire.

Heretofore, in the practical assembling of wires for hats it has been customary to insert the ends of each wire into the re-
15 spective ends of a plain tube or sleeve of sheet metal, or the like, in order to secure such ends frictionally in the tube or sleeve, and thereby hold them together. In using such a plain tube or sleeve, however, the
20 ends of the wire are apt to be inserted unevenly so that one end barely enters the tube or sleeve and will escape upon a slight jar or pressure. There being no means to position the wire ends longitudinally of the
25 connecting device, it follows that one of the ends may be inadvertently inserted to such an extent as to leave insufficient room for the other end of the wire.

The object of the present invention is to
30 avoid these defects and to provide a clamping or connecting device, having means for positioning the wire ends longitudinally thereof and for clamping them in place in an especially simple and effective manner.

35 To these ends, the invention consists in the novel features to be hereinafter described and claimed.

Referring to the drawings, Figure 1 represents an elevation of a hat wire, with the
40 improved clamping device, Fig. 2, a detail top view (somewhat enlarged) of the sleeve or tube by itself. Fig. 3, a corresponding side view of the tube or sleeve, Fig. 4, a longitudinal horizontal section on line 4-4
45 of Fig. 3, and Fig. 5, a similar view with the ends of the wire inserted.

In all figures, similar letters of reference represent like parts.

50 The letter A represents a hat wire of ordinary form; and B and C its ends.

D represents a tube or sleeve formed by rolling a plate of sheet metal longitudinally so that its edges E and F are brought near
55 together. On the side of the longitudinally split tube where the edges E and F are brought together, and near the middle of

its length the tube is crimped at G, so that the edges are forced inward, and the internal diameter of the tube is lessened at this point, as more particularly shown in
Figs. 4 and 5.

In operation, the wire A is bent in substantially the form desired, so that the ends B and C are brought near together. One
85 end is thereupon inserted in the tube D until it is wedged within the tube between the sides at the point G where it is crimped. The other end is thereupon inserted through the other end of the tube, and likewise
70 wedged in the tube, as shown more particularly in Fig. 5. By this construction, the two ends are inserted about an equal distance into the tube, so that there is little
75 likelihood that either will slip or be jarred out of the tube. Furthermore, they are both wedged or caught in the tube by means of the narrowed portion of its diameter, so that considerable force is necessary to dis-
place them.

By splitting the tube longitudinally,
80 throughout its length, the resiliency of the same in a lateral direction is very much increased, whereby the gripping effect of the clamp on the ends of the wire is corre-
85 spondingly augmented, if the ends of the wire are of a diameter which is substantially as great as the normal inner diameter of the tube. In this manner, the wire
ends are not only wedged in place by the
90 crimp but are gripped laterally in a very effective manner, substantially throughout the length of the tube. It is not necessary to crimp the tube throughout its entire cir-
95 cumference; the best results have been obtained by forming the crimp in the opposing edge portions of the tube, along the slit, said crimp extending only partially around the tube, as shown.

It is desirable, of course, that the inner
100 surface of the tube be comparatively smooth and free from any obstructions which would prevent the ends of the wire from being slipped into the tube in an easy manner. The function of the crimp or indentation
105 in the tube wall is to wedge the extremities of the wire in place, as explained, and to insure their proper positioning longitudinally of the tube; and the crimp or inden-
110 tation, in connection with the frictional contact of the wire with the smooth wall surface of the tube, is sufficient to grip the wire firmly, without obstructing the in-

terior of the tube at or adjacent the extremities of the latter.

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

1. As an article of manufacture a device for connecting the ends of a hat wire, comprising a sheet metal tube divided longitudinally to provide a certain amount of lateral resiliency, said tube being provided at its middle portion with a crimp or indentation reducing the internal diameter of the tube and serving to wedge in place the ends of the hat wire, and to insure their proper positioning longitudinally of the tube, the inner surface of the tube being substantially smooth and unobstructed adjacent the respective extremities of the

same, to facilitate the slipping of the wire ends into place against said crimp or indentation; substantially as described. 20

2. As an article of manufacture, a device for connecting the ends of a hat wire, comprising a tube slit from end to end, and provided intermediate of its ends with a crimp formed in the opposing edge portions of the tube, along the slit, said crimp extending only partially around the tube; substantially as described. 25

In witness whereof, I have hereunto set my hand on the 16th day of November, 1907. 30

GEORGE B. SHERMAN.

Witnesses:

ROBERT S. ALEXANDER,
KATHRYN E. HARTY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."