

No. 756,251.

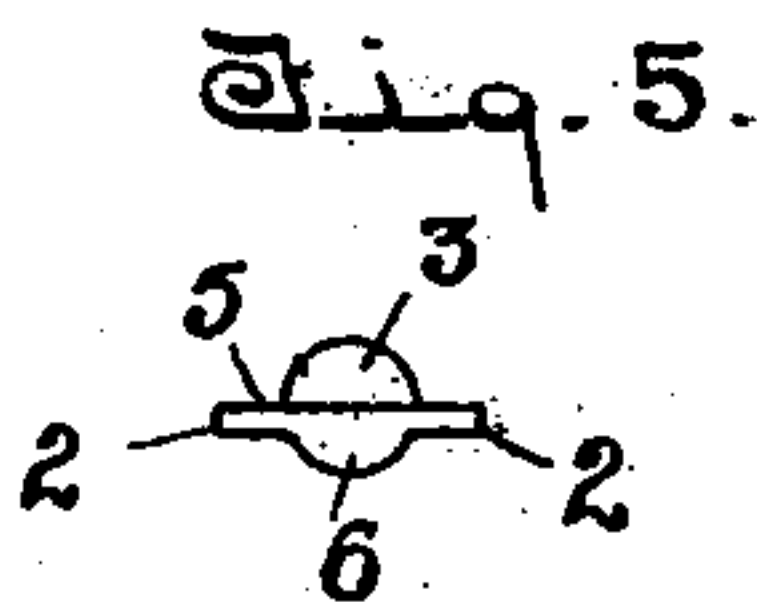
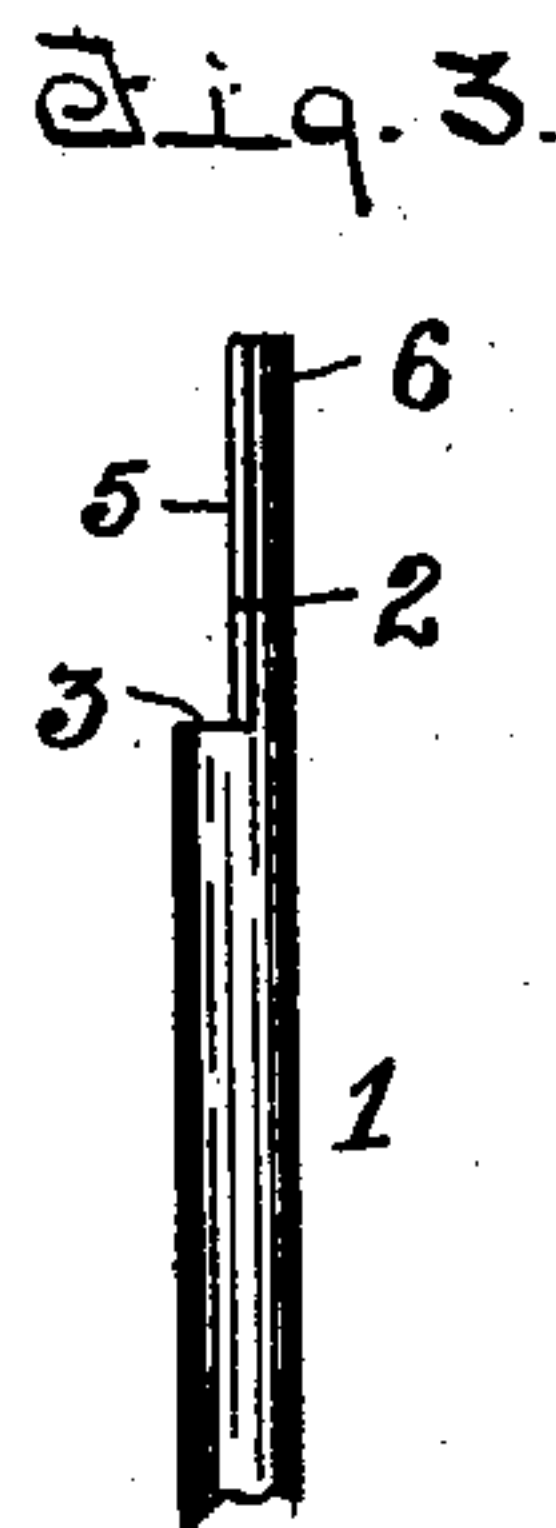
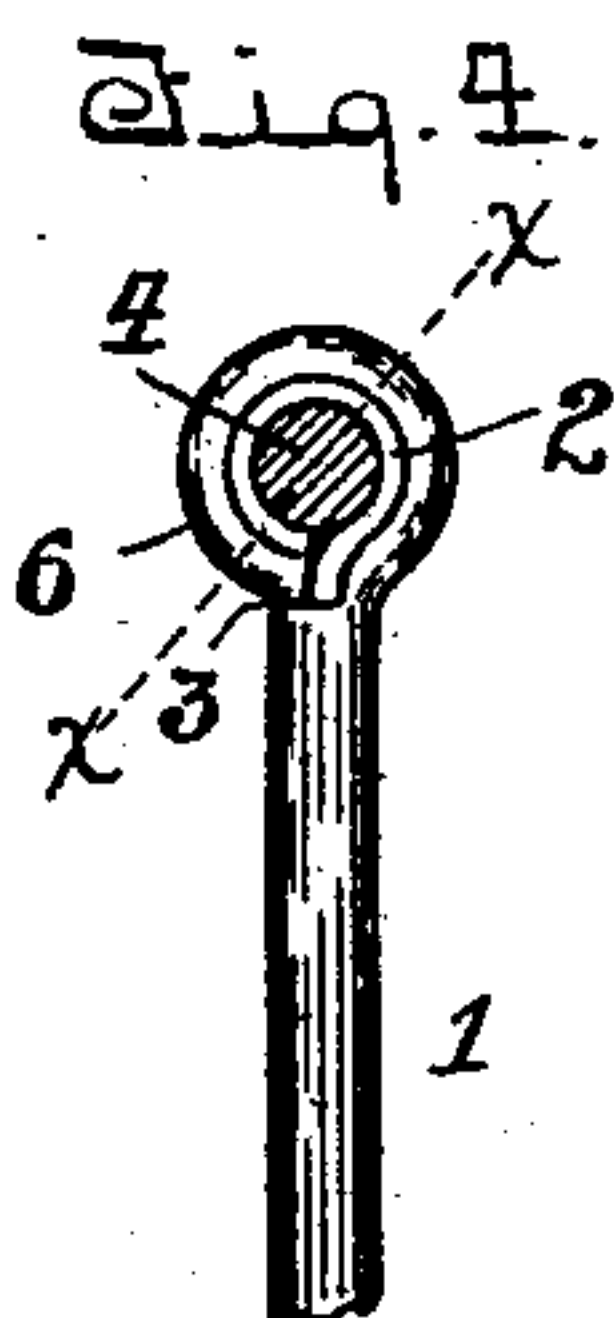
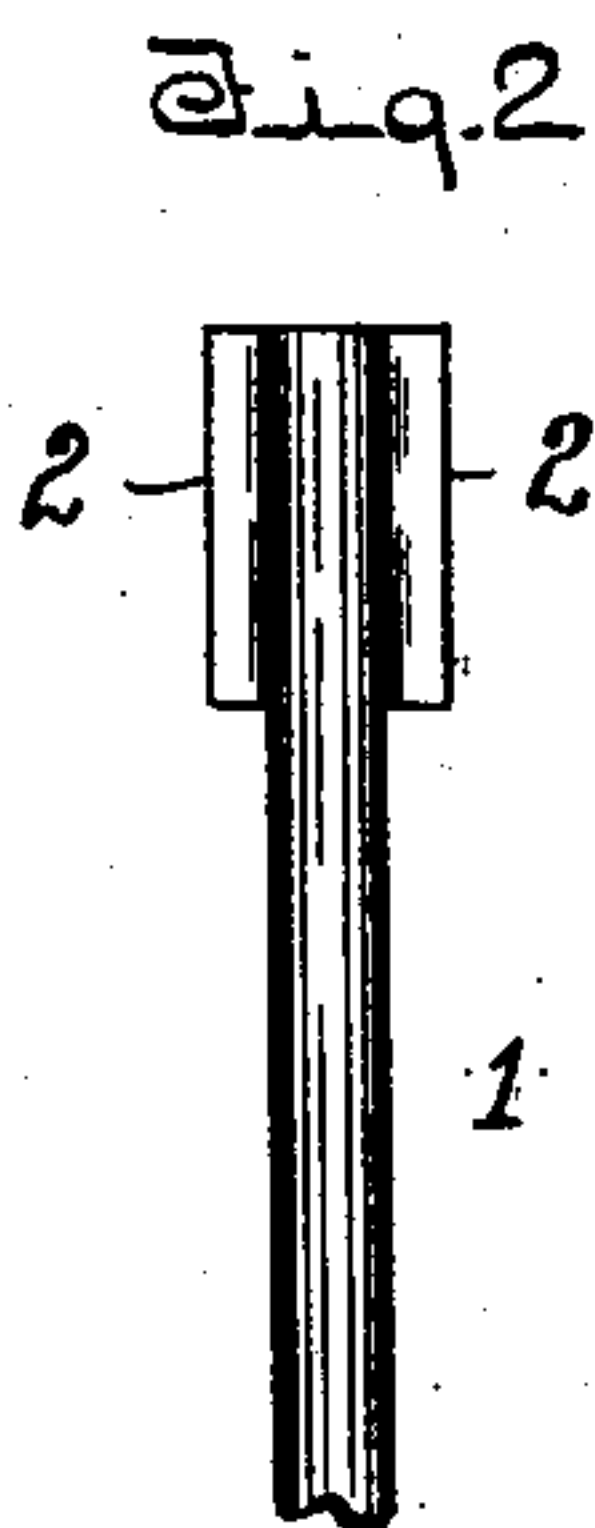
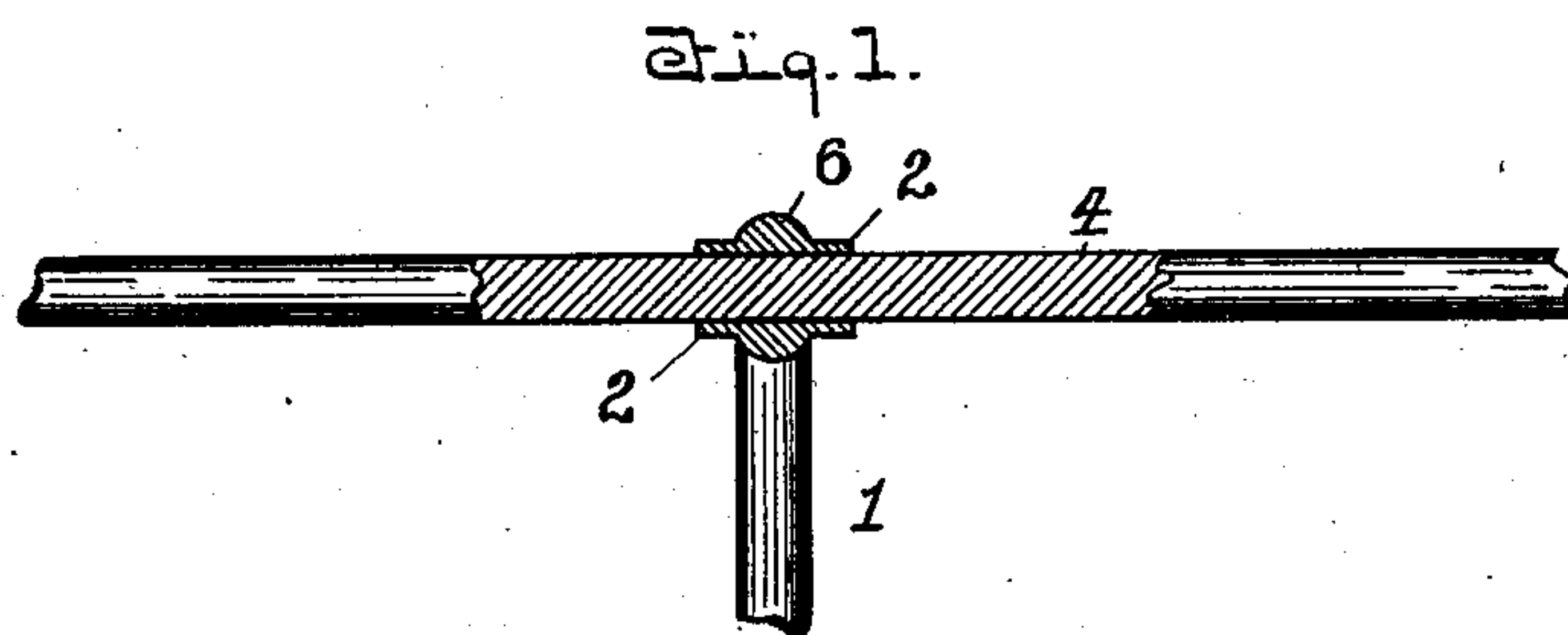
PATENTED APR. 5, 1904.

J. F. LESLIE.

WIRE JOINT.

APPLICATION FILED JUNE 29, 1903.

NO MODEL.



Witnesses:

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UNITED STATES PATENT OFFICE.

JOHN F. LESLIE, OF SOUTH BEND, INDIANA.

WIRE-JOINT.

SPECIFICATION forming part of Letters Patent No. 756,251, dated April 5, 1904.

Application filed June 29, 1903. Serial No. 163,481 (No model.)

To all whom it may concern:

Be it known that I, JOHN F. LESLIE, a citizen of the United States, residing at South Bend, in the county of St. Joseph and State of Indiana, have invented certain new and useful Improvements in Wire-Joints; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it ap-
 10 pertains to make and use the same.

This invention relates to improvements in joints for connecting sections of metal rods or wires such as are used in the manufacture of window or door gratings, gridirons, or other
 15 open-work structures.

The object of the invention is to construct a strong joint which possesses great rigidity and wherein the employment of solder or other cementing material is dispensed with, while
 20 none of the metal is wasted in forming the joint.

To these ends the invention consists in making a joint by reducing the end of the rod by forging and utilizing the surplus metal to produce lateral longitudinally-disposed extensions on the reduced end, so that when this reduced end is bent around a second rod, with its inner flat face contiguous to the periphery of the second rod, the lateral extensions will
 30 provide a broad grasping-surface which insures stable and rigid joint without the use of cementing material.

For a full understanding of the merits and advantages of my invention reference is to be
 35 had to the following description and the accompanying drawings, wherein—

Figure 1 is a view, partly in elevation and partly in longitudinal section, on the line $x x$ of Fig. 4. Fig. 2 is a side elevation of the
 40 end of one section with the lateral extensions formed thereon. Fig. 3 is a view at right angles to Fig. 2. Fig. 4 is a side elevation of the joint complete, and Fig. 5 is an end view of the reduced section shown in Fig. 2.

45 Making renewed reference to the drawings, 1 designates the end of the rod or section from which the eye for grasping a second rod or section is formed. The end of this rod is reduced by forging or rolling, and by such operation there is formed on each side lateral ex-
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tensions or wings 2, which are disposed longitudinally of the rod, and there is also formed a shoulder 3, in which the extremity of the reduced end engages when the latter is bent around a second rod or wire 4.

For forging the lateral extensions on the end of the rod 1 none of the metal is wasted and an increased gripping-surface is provided. This gripping-surface is made with a flat face 5, while the outer side of the reduced portion
 60 maintains its convexity, as at 6, which, together with the lateral extensions, forms a gradually-increasing bulge, and by maintaining this transverse curvilinear on the outer face of the reduced end between the lateral
 65 extensions a very strong and rigid joint is produced. When the reduced end is bent around the second section or rod 4, with the flat face of the former contiguous to the periphery of the latter and the extremity of such reduced
 70 end fitted in the shoulder 3, as shown in Fig. 4, a substantial and rigid joint is formed, the shoulder preventing displacement of the reduced end when the joint is subjected to torsional or tensile strains.

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

1. A joint composed of two sections, one of said sections having its end reduced and formed
 80 with a shoulder and lateral extensions, said reduced end being bent around the other section with its extensions contiguous to the periphery of the other section and its extremity engaged in the shoulder.

2. A joint of the class described, composed of two sections, one of said sections having its end reduced by forging and formed with lateral longitudinally-disposed extensions and a shoulder at the base of said reduced end, the
 90 inner side of the reduced end being flat and engaging with the periphery of the other section, and the outer edge of the extremity of said reduced end being engaged with the shoulder, substantially as specified.

3. A joint composed of two sections, one of said sections having its end reduced in the direction of its length by forging and formed with longitudinal lateral extensions, and a shoulder at the base of said reduced end to
 100

provide a flat gripping-surface on one side
which is bent around the other section, the
other and outer side of said reduced end main-
taining its transverse curvilinear between the
5 lateral extensions, whereby a gradually-in-
creasing bulge is formed on the outside of the
joint.

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

JOHN F. LESLIE.

Witnesses:

GEORGE OLTSCH,
MAGGIE OLTSCH.