

(No Model.)

J. J. UNBEHEND.
PROCESS OF MAKING RIVETS.

No. 432,499.

Patented July 15, 1890.

Fig. 1.

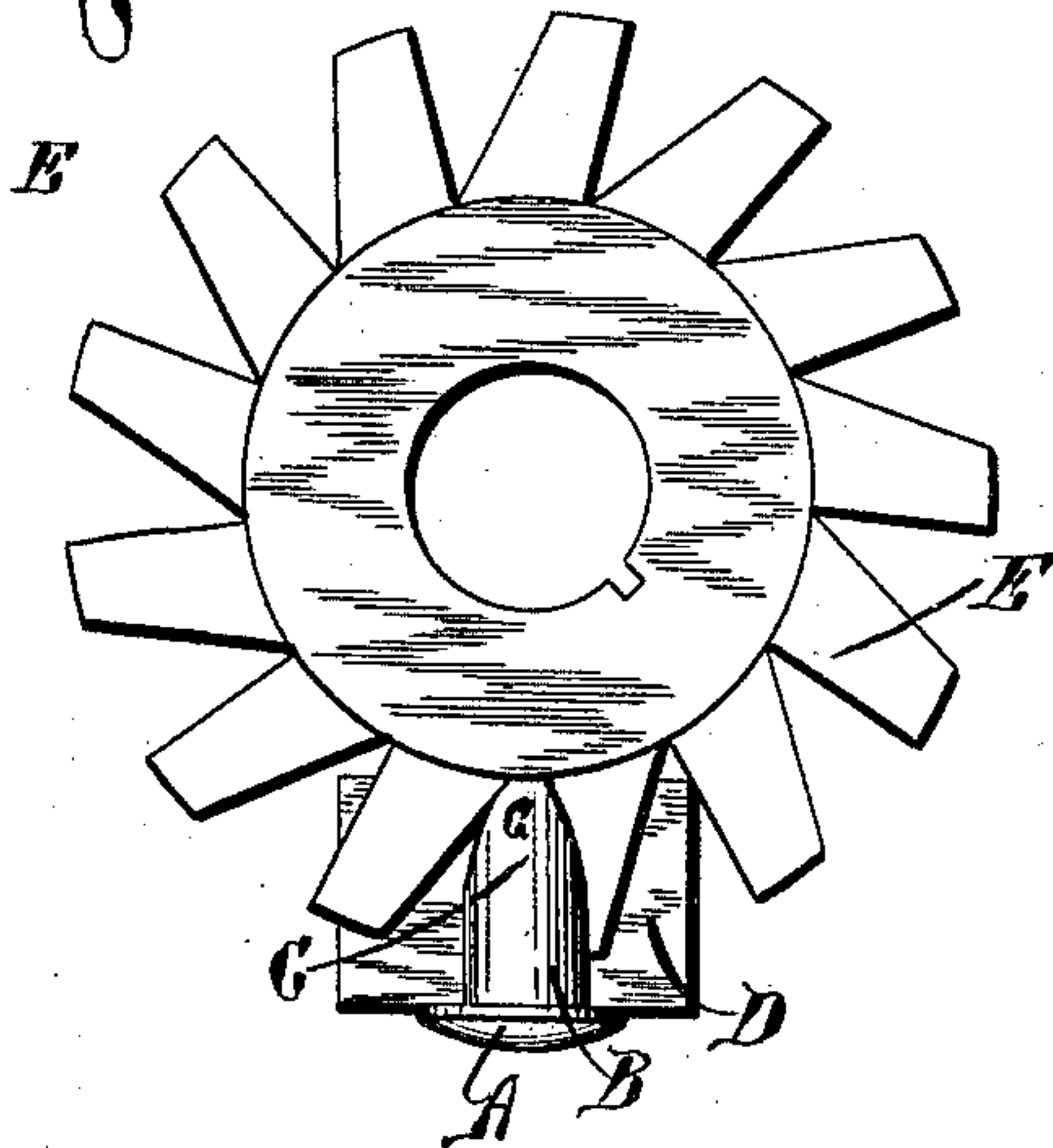


Fig. 2.

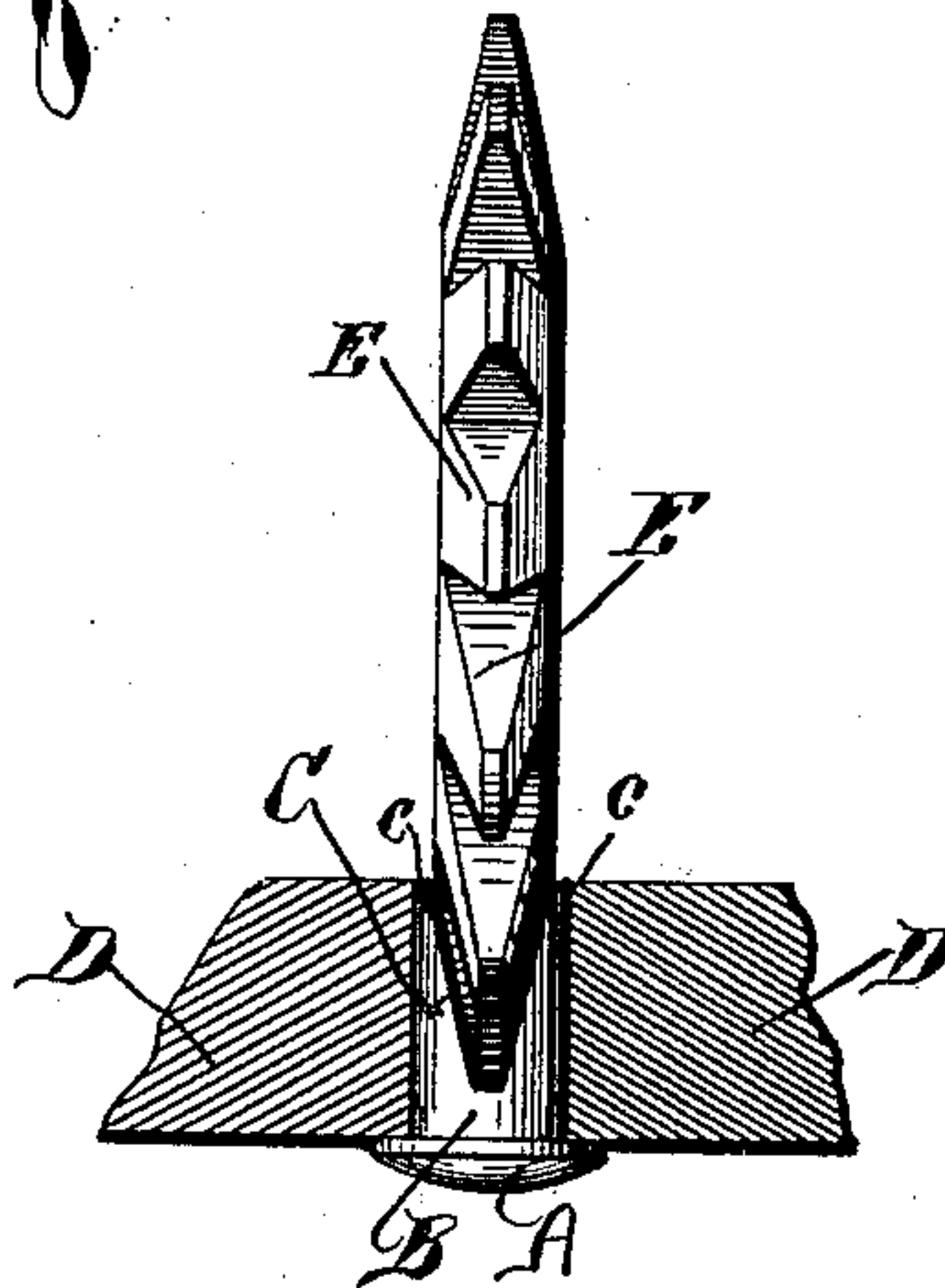


Fig. 3.

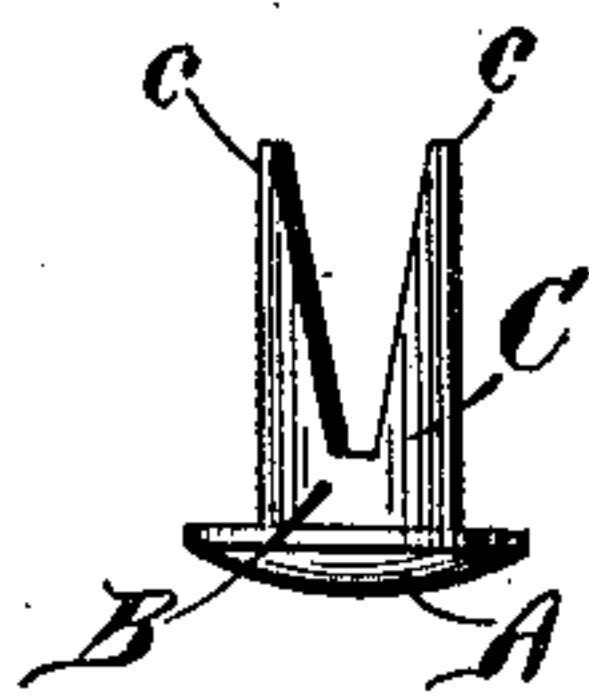


Fig. 4.

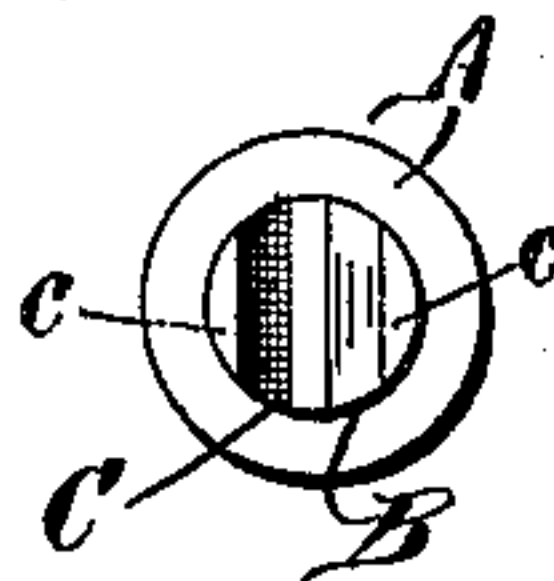
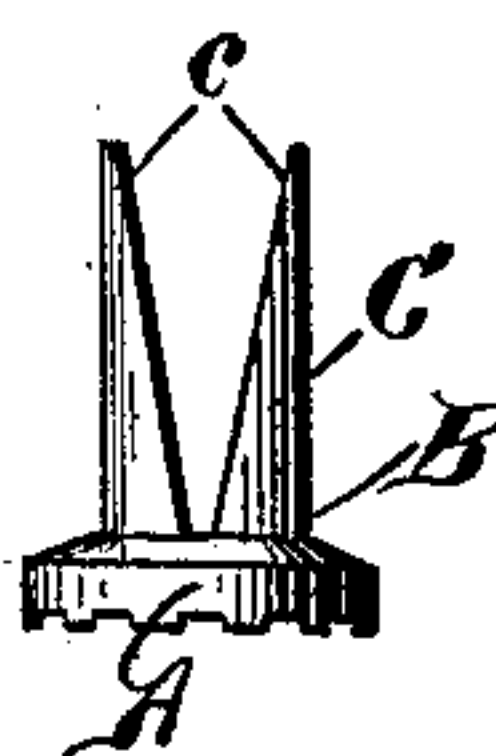


Fig. 5.



WITNESSES:

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PROCESS OF MAKING RIVETS.

SPECIFICATION forming part of Letters Patent No. 432,499, dated July 15, 1890.

Application filed May 17, 1889. Serial No. 311,126. (No model.)

To all whom it may concern:

Be it known that I, JACOB J. UNBEHEND, of Syracuse, in the county of Onondaga, in the State of New York, have invented new and useful Improvements in a Process for Making Rivets, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

My invention relates to the manufacture from solid wire of rivets provided with securing-prongs, of the form described and claimed in my application filed May 10, 1887, Serial No. 237,719; and it consists in an improved method or process of forming said rivets, which will be readily understood by reference to the description of the accompanying drawings, illustrating said process, and to the claim hereinafter given.

In describing my invention reference is had to the accompanying drawings, forming a part of this specification, in which like letters indicate corresponding parts in all the views.

Figure 1 is an elevation of a rivet, together with the preferable means employed for constructing the rivet according to my improved process. Fig. 2 is an edge view of the parts illustrated in elevation in Fig. 1. Fig. 3 is an elevation of a rivet constructed according to my improved process. Fig. 4 is a top plan view of the construction of rivet illustrated in Fig. 3, illustrating particularly the form of the prongs thereof, and Fig. 5 is a modified form of a rivet-clinching prongs, extending to the head thereof.

A section of solid wire is provided with a head A, preferably upset thereon. It is unnecessary to illustrate or describe the mechanism for forming this head, since any of the well-known rivet forming or heading machines may be used.

The rivet B is then suitably supported by subjecting opposite sides of the shank C to pressure. The preferable manner of pressing said shank is by means of dies or pressure devices D, of desirable form, which contact with opposite sides of said shank, allowing a space to be interposed between said dies or pressure devices. A cutter E is then actuated to remove or cut away the central portion of said rivet-shank C, forming the

prongs c. The illustrated form of cutter E is what is known as a "rotary cutter" or "milling-tool;" but a broach or even dies or punches might be used to remove the central portion of said rivet. After cutting away the central portion of the rivet and forming the prongs c, the dies or pressure devices D may be slightly separated and the rivet allowed to fall to any suitable receptacle for receiving the same.

As described in my application aforesaid, a very effective rivet is produced, the prongs of which are formed with rounding outer sides and flat inner sides, said prongs being tapering widthwise from their points of junction to their cutting-edges, and having a greater distance between their cutting-edges than their points of junction. By changing the shape of the cutter the sides, instead of being of the incline shown, might be altered as desired. It will be understood that a machine for carrying out this process may be made to operate very quickly, since the dies or pressure devices might feed the rivets to the cutter and then discharge the same therefrom, or the cutter might be fed toward and away from the dies or pressure device, and the dies or pressure device might then be operated to discharge the rivet after the same is bifurcated.

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

The process of forming pronged rivets from sections of solid wire, which consists in first forming a head upon a section of said wire, then subjecting the shank of the solid rivet thus formed to pressure on two opposing sides thereof, and then removing the central portion of the blank of said shank by a suitable device, thereby forming clinching-prongs substantially as and for the purpose set forth.

In testimony whereof I have hereunto signed my name in the presence of two attesting witnesses, at Syracuse, in the county of Onondaga, in the State of New York, this 15th day of May, 1889.

JACOB J. UNBEHEND.

Witnesses:

CLARK H. NORTON,
A. E. PARSONS.