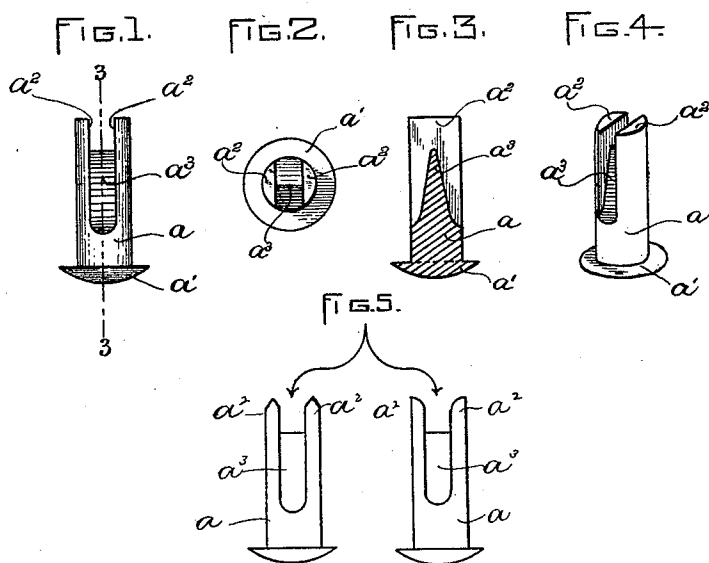


(No Model.)

J. J. UNBEHEND.
RIVET.

No. 481,125.

Patented Aug. 16, 1892.



WITNESSES:

A. S. Harrison
B. A. McShane,

INVENTOR:

J. J. Unbehend
by Wright Brown & Co. Attys.

UNITED STATES PATENT OFFICE.

JACOB J. UNBEHEND, OF WALTHAM, MASSACHUSETTS, ASSIGNOR TO THE
JUDSON L. THOMSON MANUFACTURING COMPANY, OF SAME PLACE.

RIVET.

SPECIFICATION forming part of Letters Patent No. 481,125, dated August 16, 1892.

Application filed January 18, 1892. Serial No. 418,437. (No model.)

To all whom it may concern:

Be it known that I, JACOB J. UNBEHEND, of Waltham, in the county of Middlesex and State of Massachusetts, have invented certain
5 new and useful Improvements in Rivets, of which the following is a specification.

This invention relates to rivets comprising a shank and a head both formed in one piece, the shank being slotted, so that at its outer
10 end it is divided into prongs adapted to be turned outwardly and clinch upon the outer surface of one of the parts united by the rivet, the head bearing against the outer surface of the other part.

15 The invention has for its object to provide a rivet of this class the shank of which shall be adapted to readily penetrate the substance of the parts to be united.

The invention also has for its object to provide a rivet with a wedge-shaped web adapted
20 to tie or connect together the bases of the prongs and to readily penetrate the substance of the parts or layers.

To these ends the invention consists in a
25 rivet composed of a shank and a head, the shank being slotted entirely across its outer end to form the clinching-prongs and slotted lengthwise at opposite points to form a wedge-shaped web connecting the bases of the
30 prongs and adapted to penetrate the material into which the rivet is inserted, the sides of the wedge being of substantially uniform width from the apex to the base of the wedge, as I will now proceed to describe.

35 In the accompanying drawings, forming part of this specification, Figure 1 represents a side elevation of a rivet embodying my invention. Fig. 2 represents a top view of the same. Fig. 3 represents a section on line 3 3,
40 Fig. 1. Fig. 4 represents a perspective view. Fig. 5 represents a modification.

The same letters of reference indicate the same parts in all the figures.

In carrying out my invention I form a rivet
45 composed of a shank a and a head a' formed in one piece, the shank being preferably cylindrical, although, if desired, it may be of tapering or any other suitable form, and when made tapering its outer end will be
50 smaller than its inner end. The outer end of the shank is slotted entirely across to form the clinching-prongs $a^2 a^2$, which prongs may be of any suitable length. From the slot which separates the prongs $a^2 a^2$, I extend lon-

gitudinal slots along the shank at diametri- 55
cally-opposite points, said slots being of uniform width from end to end and formed to convert a portion of the shank into a wedge-shaped web a^3 , the apex or cutting-edge of which is at its outer end and at the bases of 60
the prongs $a^2 a^2$, the sides of said wedge being of uniform width from the cutting-edge to the base. I prefer to form the apex of said web with a comparatively sharp cutting- 65
edge, so that it will readily cut or penetrate the material into which the rivet is driven. It will be seen that the wedge-shaped web a^3 not only enables the rivet to be more readily 70
inserted in the material than a rivet in which the bottom of the slot separating the prongs is substantially parallel with the plane of the outer end of the shank; but it will also be seen that the web connects or ties together the 75
bases of the prongs of the rivet, and thus prevents excessive spreading of said prongs during the clinching operation.

The improved rivet presents the minimum of surface resisting the insertion or driving of the rivet through the material, the only flat surfaces which are substantially at right 80
angles with the direction in which the rivet is driven being the outer ends of the prongs a^2 . The prongs may be beveled or sharpened at their outer ends, as shown in Fig. 5, or otherwise formed, to more readily penetrate 85
the material. The prongs may be turned inwardly in clinching, a suitable washer being used when the prongs are turned inwardly.

I claim—

The improved rivet hereinbefore described, 90
composed of the shank and the head, the shank being slotted entirely across its outer end to form clinching-prongs and cut away lengthwise at opposite points on its periphery to form a wedge, with an elongated cutting- 95
edge connecting the bases of the prongs and adapted to penetrate and cut the material into which the rivet is inserted, the sides of said wedge being of uniform width, as set forth.

In testimony whereof I have signed my 100
name to this specification, in the presence of two subscribing witnesses, this 13th day of January, A. D. 1892.

JACOB J. UNBEHEND.

Witnesses:

C. F. BROWN,
A. D. HARRISON.