

(No Model.)

W. C. BRAY.

RIVET.

No. 302,648.

Patented July 29, 1884.



Fig. 1.



Fig. 2.



Fig. 3.



Fig. 4.



Fig. 5.



Fig. 6.



Fig. 7.

Witnesses:

Geo. H. Knowlton

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UNITED STATES PATENT OFFICE.

WILLIAM C. BRAY, OF NEWTON, MASSACHUSETTS.

RIVET.

SPECIFICATION forming part of Letters Patent No. 302,648, dated July 29, 1884.

Application filed December 22, 1883. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM C. BRAY, of Newton, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Rivets, of which the following, taken in connection with the accompanying drawings, is a specification.

My invention relates to that class of rivets which are used upon leather or other flexible material, and especially to such rivets as are intended to punch or force their own way through the material previous to their being set or clinched therein; and it consists in a rivet having a tubular shank the end of which is provided with a cutting-edge formed by beveling said shank upon its outside.

In the drawings, Figures 1, 2, and 3 are respectively an end view, an elevation, and a longitudinal section, of a tubular rivet illustrating my invention. Figs. 4 and 5 are respectively an end view and a section of a solid slotted rivet with my invention applied thereto. Figs. 6 and 7 are an end view and a section of a tubular slotted rivet, also embodying my invention.

The rivet shown in Figs. 1, 2, and 3 is constructed like an ordinary tubular rivet, except that its point is provided with a cutting-edge produced by forming a bevel around the outside thereof, as shown. The advantage of this improvement is that the rivet will cut its way through the leather or other material in which it is to be set much more readily than if of the ordinary construction. These rivets are usually inserted in the material and clinched at one operation and by a single movement of the setting tool or tools, and a large portion of the power required is consumed in forcing the rivet through the goods; hence by my invention much less power will be required, and a smaller machine may be used to accomplish the setting. This I have found to be fully demonstrated in practice.

I am aware that a tubular rivet has been made with a cutting-edge at its point, formed by beveling said edge around its inner side, thus leaving the outside of the rivet-shank perfectly cylindrical. This rivet, when forced into the leather, has a tendency to split at its point and become clinched before having passed entirely through the goods. My invention entirely overcomes this objection, there being no tendency of the rivet to split

during its passage through the material until it has reached the setting-tool upon the opposite side.

In Figs. 4 and 5 my invention is shown applied to a rivet having a shank which is solid, with the exception of a longitudinal slot which extends from the point toward the head. This, like the tubular rivet, is made to force its own way through the goods, and by providing it with a frusto-conical point, as before mentioned, the power required to insert the rivet is much reduced, inasmuch as the shank, being more pointed, will separate or force aside the material as the rivet penetrates; and if pieces of the goods are punched out, the size of said pieces will be reduced in proportion to the reduced area of the rivet-point.

My invention may also be applied to tubular rivets or eyelets made from sheet metal, or to tubular rivets having one or more longitudinal slits therein, as shown in Figs. 6 and 7. It is also useful as applied to solid rivets, which are inserted in a hole previously punched in the goods, as, being more pointed, they are more easily inserted. The frusto-conical point is designed to be formed by a suitably-shaped die during the process of "heading" the rivet; and in the case of the tubular rivet a depression or countersink may be formed in the end of the shank in the usual manner for the purpose of centering the drill used in drilling out said shank.

What I claim as new, and desire to secure by Letters Patent of the United States, is--

1. A rivet having a head and a tubular cylindrical shank made in one piece, and having a cutting-edge at the end of said shank, formed by beveling the outer corner thereof, substantially as described.

2. A rivet provided with one or more longitudinal slits extending from the point toward the head, and having a cutting-edge formed by beveling the outer corner of the tubular shank, substantially as and for the purposes described.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 20th day of December A. D. 1883.

WM. C. BRAY.

Witnesses:

N. C. LOMBARD,
WALTER E. LOMBARD.