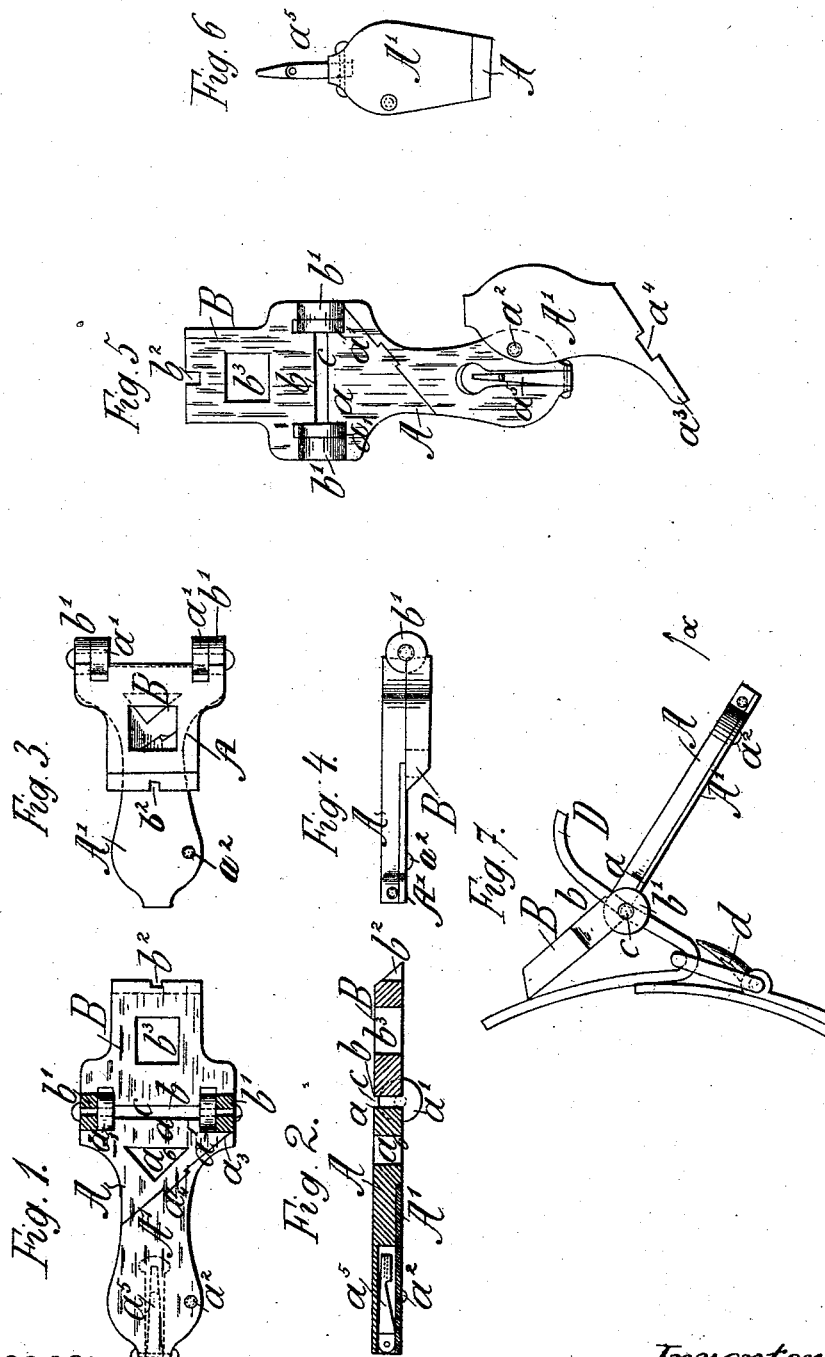


(No Model.)

F. VON EULENFELD.  
DEVICE FOR TIGHTENING SADDLE GIRTHS.

No. 455,745.

Patented July 14, 1891.



Witnesses:  
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# UNITED STATES PATENT OFFICE.

FERDINAND VON EULENFELD, OF Breslau, Germany.

## DEVICE FOR TIGHTENING SADDLE-GIRTHS.

SPECIFICATION forming part of Letters Patent No. 455,745, dated July 14, 1891.

Application filed March 11, 1891. Serial No. 384,578. (No model.)

*To all whom it may concern:*

Be it known that I, FERDINAND VON EULENFELD, a subject of the King of Hungary, residing at Breslau, in the Province of Silesia, in the Empire of Germany, have invented certain new and useful Improvements in Devices for Tightening Saddle-Girths; 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 appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The invention relates to that class of devices or tools known as "combination" tools; and my said invention has for its object to provide a tool or device more particularly designed for the use of horsemen or cavalrymen and adapted to be compactly folded and constructed for use as a saddle-girth tightener, nail-extractor, punch or awl, calk-tightener, hoof-cleaner, and for other purposes.

To these ends the invention consists in the construction of the tool or device, as will now be fully described, reference being had to the accompanying drawings, in which—

Figure 1 is a top plan view illustrating my improved tool or device unfolded or opened. Fig. 2 is a longitudinal central section thereof. Fig. 3 is a top plan view of the tool or device folded together. Fig. 4 is a side or edge view of Fig. 3. Figs. 5 and 6 are top plan views illustrating the mode of securing the punch or awl point into position for use; and Fig. 7 is an elevation of the tool or device, illustrating the mode of using the same in tightening the saddle-girth.

In the above figures of drawings like letters indicate like parts wherever they may occur.

My improved combination tool or device is composed of two plates A and B, each provided with hinge-knuckles  $a'$   $a'$  and  $b'$   $b'$ , respectively, projecting from the proximate ends thereof in such manner that when said plates are hinged together and unfolded a slot  $c$  will be formed between the hinge-knuckles and the proximate edges of the plates for the introduction of the free end of the saddle-girth.

When it is desired to tighten a saddle-girth, the free end thereof is passed through the slot  $c$ . The outer end of plate B, which is beveled, is placed against the girth and serves as a fulcrum. The plate A is then moved toward plate B, as indicated by arrow  $x$ , Fig. 7. As the plate A moves toward plate B the slot  $c$  becomes narrower, the upper edges of the slot tightly grasping the girth. By a further movement of plate A toward plate B both plates act as a lever, being rigidly connected, or substantially so, by the interposed girth D, thereby drawing the said girth through the buckle  $d$  and tightening the same. As the leverage afforded by plates A and B is considerable, but a slight effort is required to tighten the girth.

In the outer beveled edge of plate B is formed a rectangular notch  $b^2$ , adapted for use as a nail-extractor for extracting loose nails from a horse's hoof or shoe, and said plate has a rectangular slot  $b^3$ , which may be used for unscrewing or tightening calks or for unscrewing or tightening small nuts.

The outer or free end of plate A is chambered, the chamber being closed by a covering-plate  $A'$ , that turns on a pin  $a^2$ , and said covering-plate  $A'$  has an attenuated extension or arm  $a^3$ , whose end is rounded, as shown more clearly in Fig. 5, said arm serving the purpose of hoof-cleaner. A notch  $a^4$  is formed in the straight edge of the cover  $A'$ , which may be used for opening the stirrup-bars.

In the chambered portion of plate B is pivoted a punch  $a^5$ , so as to turn outwardly on its pivot at the outer end of said chambered portion. It is obvious that when the covering-plate  $A'$  is swung around to uncover the punch or awl chamber, as shown in Fig. 7, the punch or awl  $a^5$  may be turned outwardly on its pivot, and if now the covering-plate  $A'$  is moved back to its normal position, as shown in Fig. 6, the punch or awl will be held against rotation on its pivot. If desired, the punch or awl may be made in two parts, pivoted to each other, as shown in Figs. 1, 5, and 6, or the outer end of the stem may be provided with a socket for the insertion of a punch or awl, as shown in dotted lines in Fig. 2.

It will be seen from an inspection of Fig. 2 that when the covering-plate  $A'$  is in its normal or closed position it lies flush with the

remaining upper face of plate A, leaving no projecting edge to hurt the hand. The plate A has an opening  $a^6$ , which, however, has no other function than that of making the tool lighter by the amount of metal removed.

When folded, as shown in Fig. 3, the tool or device can be readily carried in the pocket.

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

1. A saddle-girth tightener comprising two plates hinged together so as to form between the hinge-knuckles and between the proximate edges of the plates a slot adapted to accommodate the free end of a saddle-girth, for the purpose set forth.

2. The combination, with the plate B, of the plate A, hinged thereto, as set forth, said plate A being constructed in the form of a handle and provided with a chamber or recess, an awl or punch pivoted in the outer end of said recess, and a cover adapted to swing on a pivot  $a^2$  over the pivotal connection of the punch or awl to lock the same against rotation on its pivot, for the purpose stated.

3. The combination, with the plate B, of the plate A, hinged thereto, as set forth, said

plate A being chambered and provided with a shoulder or abutment extending at an angle across said plate, said abutment having a projecting rib formed thereon, an awl or punch pivoted in the outer end of the chambered portion, and a cover A', pivoted to said plate A at  $a^2$  and provided with the extension  $a^3$ , having notch  $a^4$  therein, for the purpose set forth.

4. The combination, with the plate B, provided with the notch  $b^2$  in its beveled outer edge and with a rectangular opening  $b^3$ , of the plate A, hinged to plate B, as set forth, said plate A being chambered and provided with a transverse shoulder or abutment having projecting rib  $a^4$ , a punch or awl pivoted in the outer end of said chamber, and the cover A', hinged to plate A at  $a^2$ , said cover being provided with an extension  $a^3$  and a notch  $a^4$ , substantially as and for the purpose set forth.

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

FERDINAND VON EULENFELD.

Witnesses:

GOTTFRIED GEYERS,  
ERNST TASCKEL.