V. RIVINOJA.

FENCE ANCHOR.

APPLICATION FILED APR. 21, 1916.

1,249,200. Patented Dec. 4, 1917.

Fig. 1.

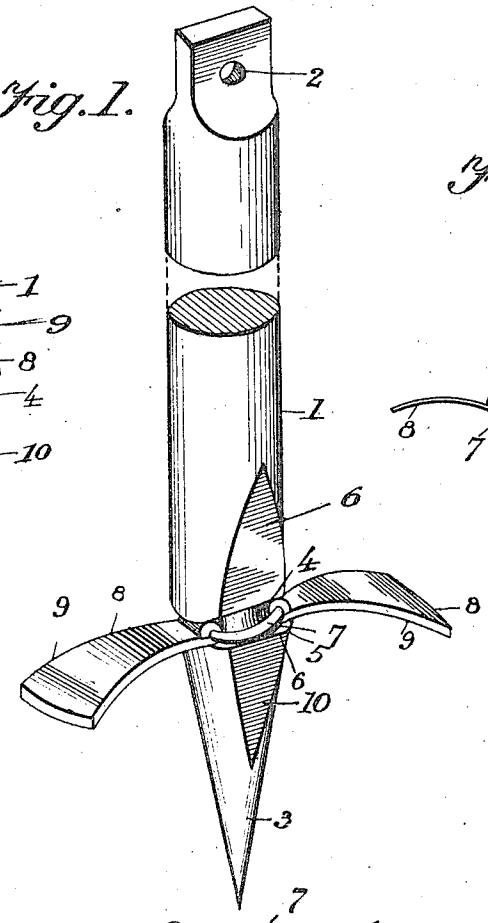


Fig. 2.

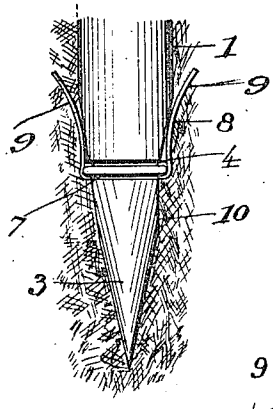


Fig. 3.

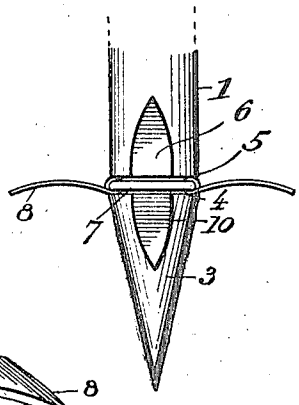


Fig. 6.

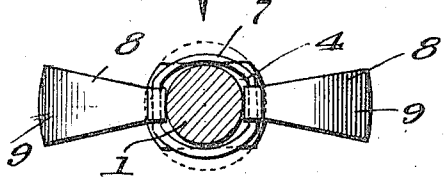


Fig. 4.

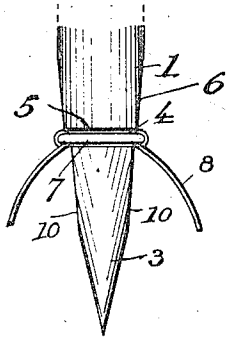
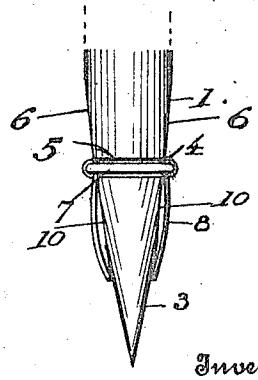


Fig. 5.



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UNITED STATES PATENT OFFICE.

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FENCE-ANCHOR.

1,249,200. Specification of Letters Patent. Patented Dec. 4, 1917.

Application filed April 21, 1916. Serial No. 92,673.

To all whom it may concern:

Be it known that I, VAINO RIVINOJA, a citizen of the United States, residing at Newell, in the county of Butte and State of South Dakota, have invented new and useful Improvements in Fence-Anchors, of which the following is a specification.

This invention relates to improvements in anchor braces for fences, bridges or other structures.

In carrying out my invention it is my purpose to provide an anchor brace which, when driven within the ground will be effectively sustained therein in one position and which when turned to another position will permit of the ready removal of the same from the ground.

It is another object of the invention to provide an anchor brace comprising a stake member having its entering end provided with a cone-shaped point, two of the opposite faces of which being flattened and the stake having an annular depression at its juncture with the point, to arrange a ring within the said depression and to provide the ring with one or more hinge anchor plates or wings which when the stake is driven in the ground will engage with the earth to effectively hold the stake in the ground and which when the stake is rotated will be brought in a line with the flat surfaces of the point, whereby an outward pull of the stake will cause the said plates or wings to be swung upon their pivotal or hinged connection with the wing and to be brought against the flat surfaces of the point and in a line with the sides of the stake, and so permitting the ready removal of the stake from the ground.

With the above and other objects in view the improvement resides in the construction, combination and arrangement of parts set forth in the following specification and falling within the scope of the appended claims.

In the drawings:

Figure 1 is a perspective view of an anchor brace constructed in accordance with the present invention,

Fig. 2 is a view showing the position of the parts when the stake is driven into the ground, the earth being shown in section,

Fig. 3 is a similar view showing the arrangement of the anchor plates or wings when the stake is partly withdrawn,

Fig. 4 is a similar view showing the arrangement of the wings when the stake is still further withdrawn and has been rotated to bring the flat faces of the points thereof in a line with the anchor plates or wings.

Fig. 5 is a similar view showing the position of the wings when the stake is arranged to be fully withdrawn from the ground, and

Fig. 6 is a sectional view taken in a line with the annular depression with the wings or anchor plates disposed approximately horizontally with respect to the stake and the said wings being also arranged over the rounded portions of the entering point of the stake.

In carrying out my invention I employ a stake 1 which is preferably rounded in cross section and which is preferably constructed of metal. The stake is preferably flattened upon its opposite faces at its outer end and provided with an eye or opening 2 to receive the connecting element between the said stake and the structure supported by the stake. The opposite or inner end of the stake is formed with a cone-shaped entering point 3 and is further provided with an annular depression 4 at the juncture of the point with the stake. The stake upon diametrically opposite sides is formed with flat surfaces which are inclined to the outer shoulder 5 provided by the said depression 4, as indicated by the numeral 6, and adapted to be received in the depression 4 and to rest upon the shoulder 5 is a ring member 7. Hingedly connected with the ring member 7 and preferably at diametrically opposite points are the wing or anchor plates 8—8, and these plates preferably have their outer ends curved, as at 9, the said curved portions being directed away from the side of the stake 1 when the anchor plates are brought against the said stake. In this connection it will be noted that the inclined or flared surface 6 also tends to retain the anchor plates 8 at an angle with respect to the stake 1 so that the ends 9 thereof will, in any event, be disposed away from contact with the said stake.

The point 3 at the diametrically opposite sides thereof is formed with flat surfaces 10 which are arranged in a line with the said inner wall provided by the depression 4, and as a consequence cut away the shoulders 5

at the said points of the device. These flat surfaces 10 are arranged in a line directly below the flat inclined surfaces 6.

When the stake is to be driven into the ground the ring 7 is turned to bring the anchor plates 8 in a line with the flat surfaces 6 and 10, and the said wings are swung into contact with the inclined flat surfaces 6. When the stake has been driven in the ground a determined distance, the said stake is turned upon itself to bring the plates or wings 8 at a right angle with respect to the straight surfaces 6 and 10, and a slight upward movement of the stake will cause the wings to assume a horizontal position. When the stake is to be removed from the ground the same is again turned to bring the wings 8 in a line with the referred to straight surfaces of the stake, and an outward pull upon the stake will cause the wings to readily swing in the direction of the flat surfaces 10, and to contact with said surfaces when the stake is almost withdrawn from the ground, the hinged connection of the members 8 with respect to the ring 7 thus permitting of the stake being withdrawn from the ground in a comparatively easy manner.

It is to be understood that when the rings are brought to contacting relation between the shoulders 5, the same will be retained against swinging upon the ring 7.

From the above description, taken in connection with the drawing, the simplicity of the device, as well as the advantages thereof will, it is thought, be perfectly apparent to those skilled in the art to which such invention appertains without further detailed description.

It is to be understood that the flat faces 6 and 10 of the stake need not be arranged in alinement, as the flat surfaces 10 upon the point of the stake may be arranged angularly with respect to the flat surfaces 6, and in fact this construction is desirable inasmuch as the wings 8 may be arranged in contacting relation to the said flat surfaces 6 when the stake is forced in the ground and then a slight upward movement of the stake, by the operator, will cause the wings 8 to swing upon the ring 5, the hinged ends of the said wings contacting with the lower shoulder provided by the annular depression 4 directly below the straight surfaces 6 preventing the wings from turning beyond a horizontal position or at a right angle with respect to the stake. When the stake is to be removed the same is turned to bring the wings in a line with the straight surfaces 10 upon the point of the stake, the said wings having been relieved from contact with the lower shoulder provided by the annular depression 4 will readily swing downwardly against the said flat surfaces 10 as the stake is moved vertically out of the ground.

Having thus described the invention, what I claim is:

1. In a device for the purpose set forth, a stake having a cone-shaped entering point and having an annular depression approximately at the juncture of the stake with the point, said stake upon its diametrically opposite sides being formed with flattened surfaces which are inclined to the shoulders provided by the said annular depression, a ring member in the annular depression, and wing members hingedly connected with the ring and whereby when the ring is turned upon the stake to one position, the wings may be brought to aline with the flat surfaces on the opposite sides of the stake to permit of the free swinging of the wings and also when the stake is turned upon the ring to bring the wings between the opposite shoulders provided by the annular depression to retain the said wings angularly with respect to the stake.

2. In a device for the purpose set forth, a round stake having a cone-shaped entering point and being provided at its juncture with its said point with an annular depression, the opposite walls of which form shoulders, the stake above the annular depression having diametrically oppositely disposed flat surfaces which incline to the inner wall of the depression, the point of the stake being also provided with diametrically opposite flat surfaces which also incline to the inner wall provided by the depression, a ring member in the depression, and wing members hingedly connected to the ring, as and for the purpose set forth.

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

VAINO RIVINOJA.

Witnesses:

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