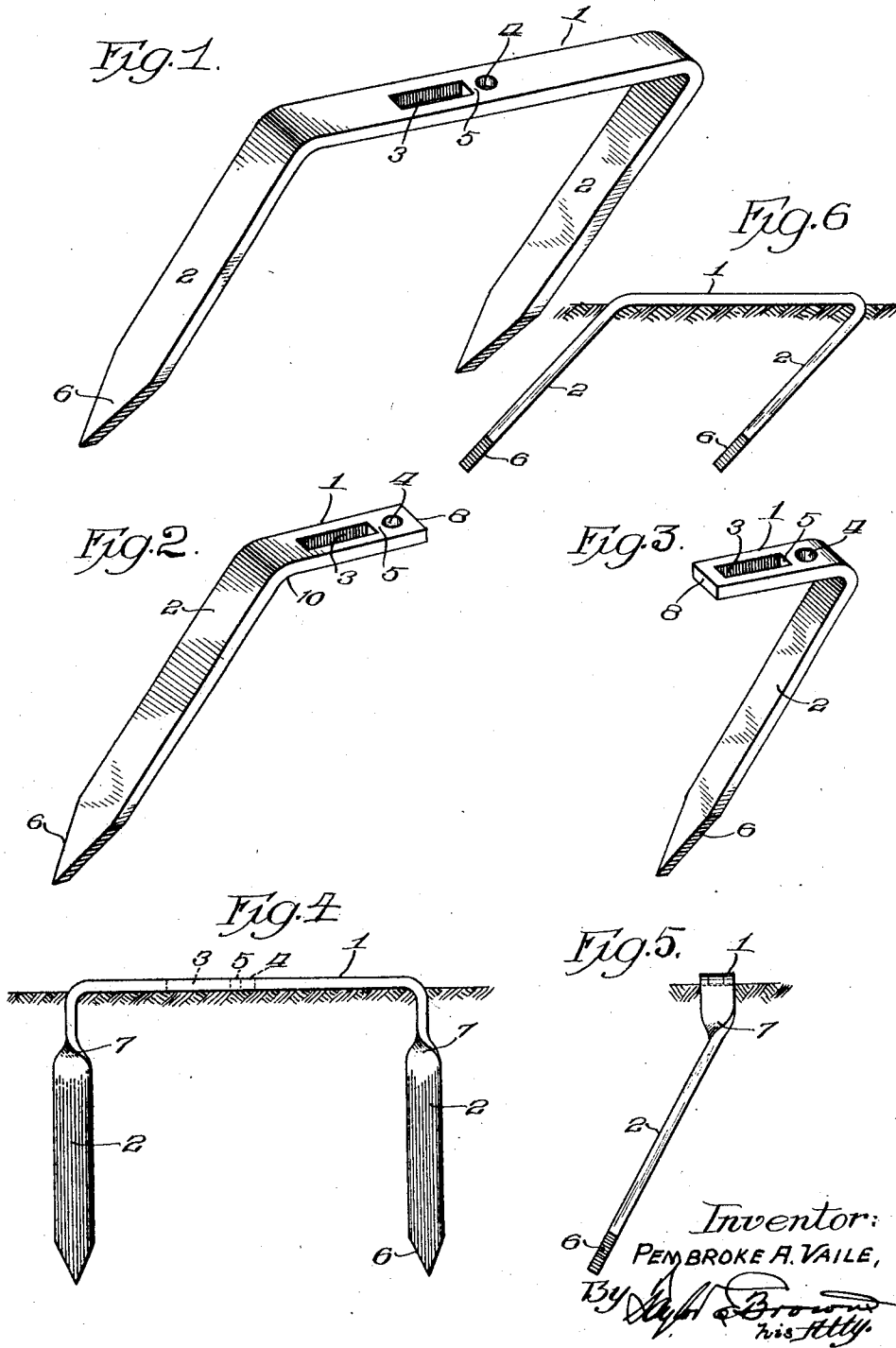


P. A. VAILE.
ANCHORING DEVICE.
APPLICATION FILED APR. 7, 1919.

1,412,582.

Patented Apr. 11, 1922.



Inventor:
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UNITED STATES PATENT OFFICE.

PEMBROKE A. VAILE, OF CHICAGO, ILLINOIS.

ANCHORING DEVICE.

1,412,582.

Specification of Letters Patent. Patented Apr. 11, 1922.

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To all whom it may concern:

Be it known that I, PEMBROKE A. VAILE, a subject of the British Empire, and a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Anchoring Devices; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to anchoring devices, such as used in securing the center stay of a tennis net to the tennis court floor, the walls of a tent to the ground, and for various other purposes.

Heretofore, anchoring devices used for the purposes indicated have usually been of stakes, pegs or staple form, having one or more pointed prongs driven into the ground, the attaching means being secured to the head of the staple or peg as the case may be. One of the difficulties with these devices has been the lack of proper frictional contact between the ground and the prong driven into it, whereby an unusual or sudden strain or lifting pull on the attaching means has resulted in overcoming the frictional resistance and either loosening the anchor or withdrawing it from the ground.

One of the objects of my invention is to produce an anchor which will obviate the objections mentioned, and which will afford a much stronger seat and frictional contact with the earth into which it is driven. Another object is to produce an anchor of very simple construction, without complicated parts, and which any novice may, without previous instruction, readily comprehend and use effectively.

Still another object of my invention is to produce an anchor which will be very strong and durable, will not readily break or get out of order and which will be very cheap to fabricate.

These and other objects and advantages of my invention will be made manifest as I proceed with my specification, and be pointed out in the appended claim.

In the drawings:

Fig. 1 illustrates in a perspective view, an anchoring device embodying my invention.

Fig. 2 is a similar view illustrating a modified form embodying the invention.

Fig. 3 is a similar view illustrating another modification.

Fig. 4 illustrates, in a side view, yet another form of anchoring device, embodying my invention, as inserted in use in the ground.

Fig. 5 is an end view of the modified form illustrated in Fig. 4.

Fig. 6 is a sectional view on a different scale, showing how the anchoring device of Fig. 1 is inserted in the ground, in use.

In said drawing, and referring first to that form illustrated in Figs. 1 and 6,—A indicates an anchoring device as a whole, constructed preferably of flat, thin and relatively narrow metal. The anchor A, in this instance, comprises three main members or sections, 1 being the center or what I herein term the bearing or attaching member, 2 being the prongs or earth engaging members. The member 1 is designed to lie flat upon the ground in use, and is provided with any suitable means whereby the attaching element of the thing (tennis net or other device) to be anchored, may be affixed. I have chosen to illustrate a conventional means for this purpose consisting of the elongated slot or aperture 3 and a circular aperture 4, separated by a bearing bar 5. Any convenient hook, not illustrated, may be inserted in the slot 3 and its point directed under the bar 5 and upwardly into the aperture 4. Thus upward strain on the hook will be directed against the under side of the bar 5.

The prong or earth engaging members 2 are preferably pointed at their ends 6 to more readily penetrate the earth. It will be observed that the prong members 2, 2, are bent at an angle to the bearing or attaching member 1 and that the prongs are parallel to each other. This anchor may be readily inserted in the ground by forcing the prongs 2, 2 therein until the under surface of the bearing member 1 rests flat upon the surface of the earth. It will be observed that in this form, the median axis of the earth penetrating members 2, 2, and of the bearing member 1, lie in the same vertical plane.

Referring now to Figs. 4 and 5, the anchor there shown is substantially the same as that just described, and is provided as shown with a central bearing member 1, earth penetrating members 2, having pointed ends 6, and with the anchoring means indicated at 3, 4 and 5. The prongs 2, 2, while bent at an

angle to the member 1, do not lie in the same vertical plane as the member 1, as clearly shown in Fig. 5. This is accomplished by twisting the members 2; as indicated at 7, and then bending that part of the members 2 below the twist at such an angle that the plane in which it shall lie when bent, will intersect a plane passing vertically through the median line of the member 1. It will be understood, of course, that in the modification shown in Figs. 4 and 5, the two members 2, 2 lie parallel to each other and in the same plane.

In Figs. 2 and 3 are shown still further modifications. The tie penetrating member 2 in each case is pointed at 6 and preferably joined integrally with the bearing member 1. I find, in this form of the device, that it is convenient to make the bearing member 1 relatively shorter than the bearing member 1 illustrated in Figs. 1 and 4. The members lie in the same vertical plane, but the angle formed on the under side of the bearing member 1 and the penetrating member 2 (Fig. 2) is an obtuse angle. In Fig. 3 the angle formed by the under side of the bearing member 1 and the earth penetrating member 2 is an acute angle. When using the form of anchor attaching means herein shown, namely: the bar 5 having on either side the two apertures 3 and 4, I place the bar 5, interchangeably, near either end of the bearing member 1; as shown in Fig. 2, the bar 5 is near the end 8 of the bar 1, while in the form shown in Fig. 3, the slotted aperture 3 is nearer the end 8 of the bar 1, and the bar 5 is nearer the point of union of the members 1 and 2 than it is to the end 8.

In use, these devices are placed in position by forcing the pointed and angularly disposed prong or prongs 2 in the earth in such position that the flat bearing surface or under side of the bearing member 1 will lie frictionally upon the ground, with the bar or attaching device 5 directly over the location where it is desired to secure the thing to be anchored, such for example as the tent, tennis net, or the like. Any upward strain or pull on the bar 5 will be firmly resisted by not only the friction of the earth upon the two flat sides and the two edges of the prong members 2, but will also be resisted by the fact that the earth lies down upon

and presses upon the upper surface of the earth penetrating member 2. This is particularly true in the form shown in Figs. 3, 5 and 6.

In addition to this, the twist 7 in the prong member affords a very great additional earth packing and resisting means. In the form shown in Fig. 2, the straight vertical draft on the bar 5, in addition to the other resisting means mentioned, will produce a resistance due to the fact that the anchor will tend, under such upward strain, on the bar 5, to pivot upon the earth about the under curved surface indicated at 10 as a pivot, and the entire under surface of the bar 2 will tend to bear more firmly against the earth rather than to be pulled or withdrawn longitudinally of its length through the earth.

Each of the forms illustrated is exceedingly practical and efficient in use, cheap to manufacture, and possesses nothing to get out of order. Slight modifications may be made therein without departing from the principle of my invention, and I therefore do not desire to be limited to the specific means herein illustrated, except as indicated in the claim appended hereto.

I claim as my invention:

An anchoring device comprising a flat metal strip bent between its ends into substantially U-shape to form two earth penetrating members having pointed ends, and an intermediate straight bearing member adapted to rest upon the ground, means on the latter for attaching thereto the device to be anchored, each penetrating member being twisted between its end and its point of union with the intermediate member so that the sections on each side of the twisted portion shall stand in different planes with respect to each other, the pointed end portions below the twisted part being inclined laterally to stand at an angle to the plane of the bearing member.

In testimony that I claim the foregoing as my invention I affix my signature in the presence of two witnesses, this 1st day of April, A. D. 1919.

PEMBROKE A. VAILE.

Witnesses:

TAYLOR E. BROWN,
B. L. MACGREGOR.