(No Model.)

A. T. ALLEN.

TENT AND LAWN TENNIS PEG.

No. 443,560. Patented Dec. 30, 1890.

FIG. 1.

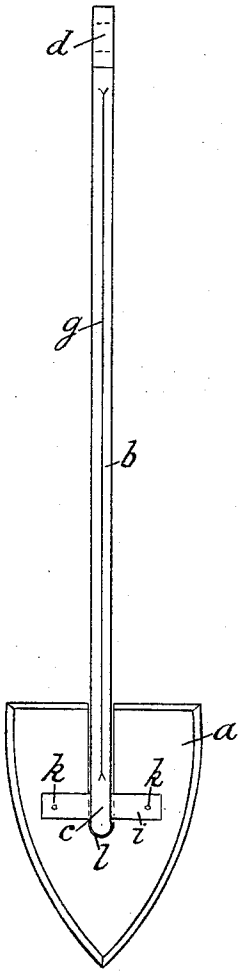


FIG. 2.

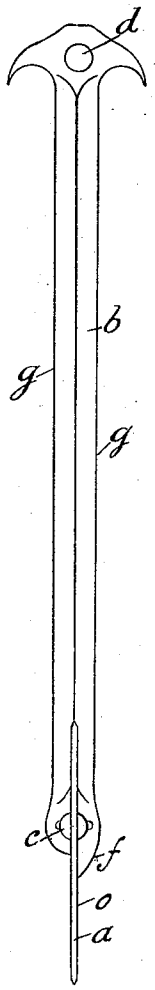


FIG. 3.

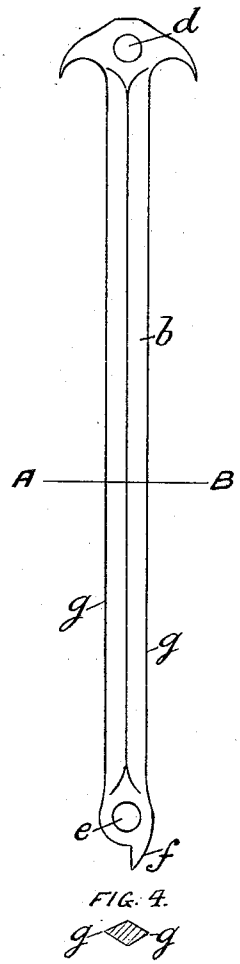


FIG. 4.

FIG. 11.

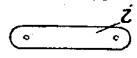


FIG. 12.



FIG. 9.

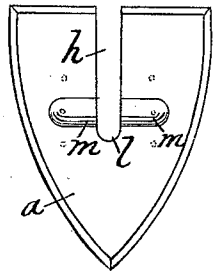


FIG. 10.



FIG. 7.

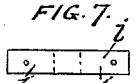


FIG. 8.



FIG. 5.

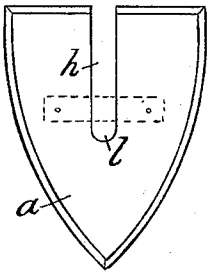


FIG. 6.

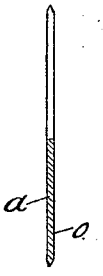
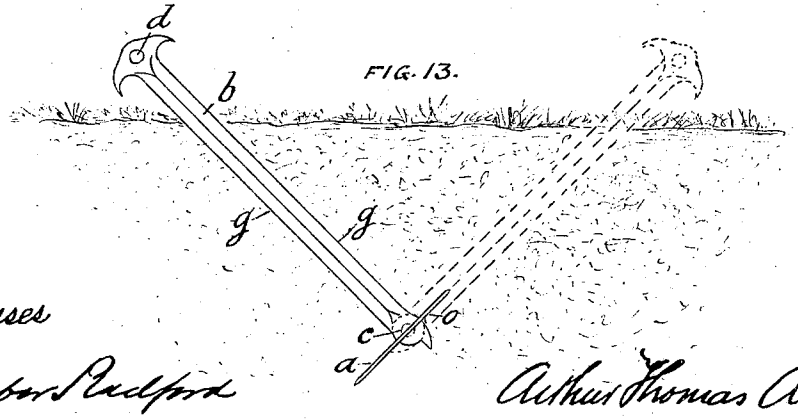


FIG. 13.



Witnesses

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ARTHUR THOMAS ALLEN, OF SHEFFIELD, ENGLAND.

TENT AND LAWN-TENNIS PEG.

SPECIFICATION forming part of Letters Patent No. 443,560, dated December 30, 1890.

Application filed June 4, 1890. Serial No. 354,196. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR THOMAS ALLEN, a citizen of Great Britain, residing at Sheffield, in the county of York, England, have invented certain new and useful Improvements in Tent and Lawn-Tennis Pegs and Appliances for Securing Cords, Ropes, Chains, Stays, Guys, and the Like Tackle to the Ground, (for which I have obtained provisional protection in Great Britain on application No. 6,527, dated April 29, 1890,) of which the following is a specification.

My invention relates to improvements in tent and lawn-tennis pegs and appliances for securing cords, ropes, chains, stays, guys, and the like tackle to the ground; and the objects of my invention are to provide the means by which cords, ropes, chains, stays, guys, and the like tackle may be more firmly attached and secured to the ground than is the case with the appliances ordinarily employed, and although my invention is applicable to a great variety of such purposes a description of it as applied to a tent-peg will suffice to illustrate its general principles and construction. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 represents a front view of one of my improved tent or lawn-tennis pegs, the shank being shown in the first position in line with the blade. Fig. 2 is a side view of the same. Fig. 3 is a side view of the shank when removed from the blade, Fig. 4 being a section of the same through the line A B. Figs. 5 and 6 are front and side views of the blade removed from the shank, and Figs. 7 and 8 are side and end views of the joint-pin by means of which the shank is attached to the blade. Figs. 9, 10, 11, and 12 are similar views of a blade and pin, showing an alternative mode of construction and method of securing the joint-pin to the blade. Fig. 13 represents my improved tent or lawn-tennis peg as it would appear in the second position in the ground when in use, the dotted lines representing the shank in the first position in line with the blade, the position in which it would be driven into the ground at an angle of forty-five degrees, or thereabout, to the horizon.

The same letters refer to similar parts throughout the several views.

a is the blade.

b is the shank.

c is the hinged joint.

d is the eye, hook, or ring at the upper end of the shank, and *e* is the hole or eye for the joint-pin at the lower end of the shank.

f is a swell or projection, also formed at the lower end of the shank, by means of which it is prevented from moving out of line with the blade on one side.

g g is the knife edge or edges of the shank.

h is the slot in the blade.

i is the joint-pin.

j j are the longitudinal slots in the same.

k k are the rivets or other equivalent fastenings.

l is the bottom end of the slot.

m m are the recesses or pouches formed in the blade as an alternative method for securing the pin.

The dotted lines *n* on Fig. 10 represent an alternative mode of securing the pin to the blade by means of a cap or caps.

o is the back or rear side of the blade.

Tent-pegs, as is generally known, are small wooden pins which are driven into the ground for securing the cords or ropes by which the canvas of a tent is stretched and kept in position, and in windy weather great discomfort and inconvenience have been experienced through these pegs working loose, and it has sometimes happened that a tent and even a whole camp has been blown down.

To obviate these defects my improved tent-peg is constructed as follows: It consists of two principal parts—viz., a blade *a* and a shank *b*—the shank *b* being attached at or near to the center of the blade *a* by means of a hinged joint *c*, which allows of the shank *b* being moved through an angle of ninety degrees, or, say, from its first position when not in use, which is that of being in line with the blade *a*, to its second position when in use, which is that of a right angle or other convenient angle to the blade *a*. The blade *a* I

make in a variety of forms; but I find the form of a spade well adapted for this purpose, and for a tent-peg it may be made in thin plate or sheet metal. The shank *b*, which I also make in metal, may be stamped, forged, cast, or otherwise formed into the required shape. It is provided with an eye, hook, or ring *d* at its upper end and with a hole or eye *e* for the connecting or joint pin *i* at its lower end. A swell or projection *f* is also formed at the lower end, by means of which it is prevented from moving out of line with the blade *a* on one side.

When connected together and the shank *b* is in the first position, (in line with the blade *a*,) the appliance has the appearance of a small spade or harpoon, and when in the second position with the shank *b* at right angles to the blade *a* it somewhat resembles a small anchor or kedge.

The manner in which this appliance is used for a tent-peg or other analogous purpose is as follows: The blade *a* and shank *b* being in the first position, as already described, the blade *a* is forced into the ground at an angle of forty-five degrees with the surface or horizon until the shank *b* is buried up to or nearly up to its upper end, leaving the eye, hook, or ring *d* aboveground. The shank *b* is now pulled over to the opposite angle, to facilitate which I form it with a knife-edge *g g* on one or both sides. The blade *a* thus remains at the angle at which it was first forced into the ground, and the shank *b*, after being pulled over, occupies a position at a right angle, or thereabout, to the blade *a*, and in this position it is almost impossible to pull or cause the blade to drag, as the whole surface of the blade *a* is in the direct line of resistance.

When it is desired to take up the appliance, the shank *b* is drawn back to the first position, when it can be easily raised or drawn from the ground.

From the description just given it will be seen that when my improved appliance has to be forced or driven into hard ground, it is desirable that the shank *b* should when in the first position be as fair in line and central with the blade *a* as possible, and that the joint-pin and connection *i* should, so far as is consistent with strength, be as restricted in size and of a form to offer as little resistance to the earth as possible; also, that when in the second position the pull on the blade *a* shall be as direct and as evenly distributed as possible. In order to effect these objects I construct the blade *a* with a slot *h* running in the direction of its length—*i. e.*, in line with the shank *b*, and of a width corresponding to the width of the shank *b*. The joint-pin *i*, by which the shank *b* is attached to the blade *a*, I construct of a piece of round metal of the same size in diameter as the eye *e* in the shank *b*. This pin *i* I make long enough to extend some distance across the blade *a*, and at each end of the pin form a longitudinal slot *j j*, these slots being equidistant from the end of the pin *i* leaving the part which goes through the eye *e* of the shank *b* solid. When the pin *i* has been inserted into the shank *b*, the shank *b* is passed into the slot *h* in the blade *a*, and the blade *a* is passed into the two slots *j j* in the pin *i*, and when in position the pin *i* is riveted at each side to the blade *a*. The pin *i* in the eye *e* of the shank *b* is made an easy fit, so that when it becomes necessary to use great force to drive the blade *a* into the ground the bottom end of the shank *b* will bear on the bottom of the slot *h*, so as to relieve the stress from the rivets *k k*, which secure the pin to the blade *a*, the stop or projection *f* at the end of the shank *b* being, as has already been explained, so formed as to stop the shank *b* from being drawn out of line with the blade *a*, except in one direction, which will be on the side on which the pull of the rope or other tackle will be received.

Among the other purposes to which my invention is applicable may be mentioned a peg or stake for securing the stays of telegraph-poles or scaffolding, a stake for mooring boats or other craft to the shore, a ground-anchor for securing the ropes or chains of a temporary suspension-bridge, and many other similar uses.

As the nature of the strains to which such pegs, stakes, or ground-anchors as herein described are subjected is increased, I construct the several parts on a larger scale, and in some cases, in lieu of making the blade *a* of plate or sheet metal, it may be forged, stamped, cast, or otherwise formed of various thicknesses. For example, it may be made thicker toward the center of the blade and thinner as it approaches the outer edges of the same.

As an alternative method of securing the joint-pin *i* to the blade *a*, in lieu of forming the slots *j j* in the pin *i* for the reception of the blade *a*, I form recesses or pouches *m m* in the blade *a*, one on each side of the longitudinal slot *h*, such recesses or pouches *m m* being stamped, pressed, cast, or otherwise formed to a depth and size equal to half the diameter of the pin *i*. Into these recesses *m m* the pin *i*, after it is fitted into the eye *e* of the shank *b*, is laid and secured either by caps or by rivets or otherwise.

When the above method is employed, the pin *i* would be placed at what may be called the "back" or "rear" side *o* of the blade *a*—that is, the opposite side to which the pull or stress on the shank *b* is received when in use.

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

1. In a tent or lawn-tennis peg, the combination of a shank with longitudinally-sharpened edges, with a pointed blade with a slot cut from its upper edge to its center to allow one end of said shank to be pivoted

at or near said center, substantially as set forth.

2. In a tent or lawn-tennis peg, the combination of a shank with longitudinally-sharpened edges, a pointed blade with a slot cut from its upper edge to its center to allow one end of said shank to be pivoted at or near said center, a pin upon which said shank is pivoted and having its ends secured to said blade on each side of said slot near the center, and a shoulder on said shank below its pivotal point, substantially as set forth.

ARTHUR THOMAS ALLEN.

Witnesses:
P. HEBER RADFORD,
ALBERT FRANCE.