No. 801,325. PATENTED OCT. 10, 1905.

F. LICHTFELDT.

TREE GUARD OR PROTECTOR.

APPLICATION FILED APR. 23, 1902.

Fig. 1.

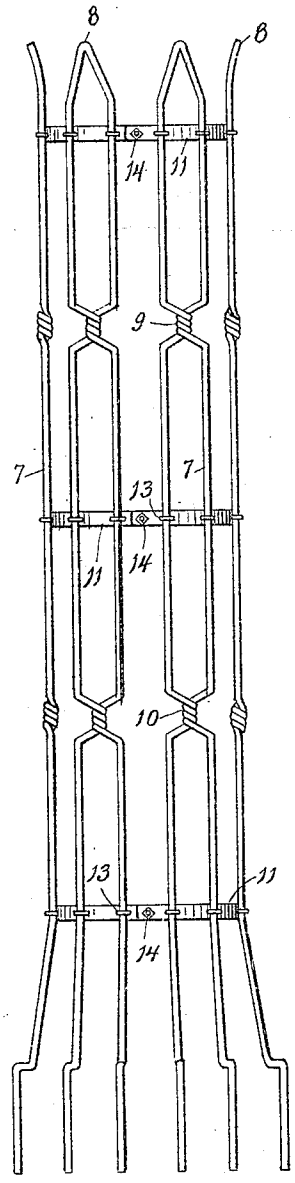


Fig. 2.

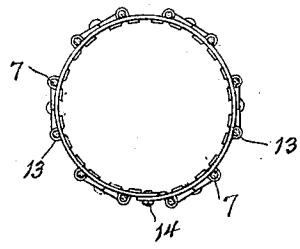


Fig. 3.

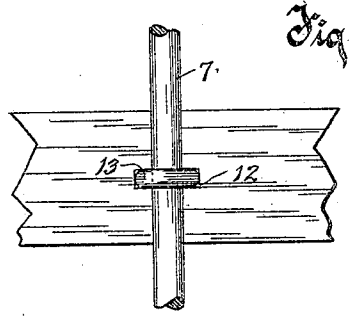


Fig. 4.

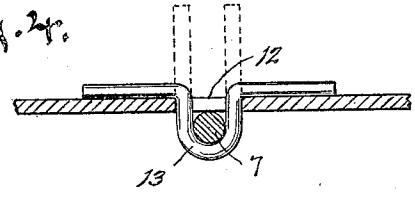


Fig. 5.

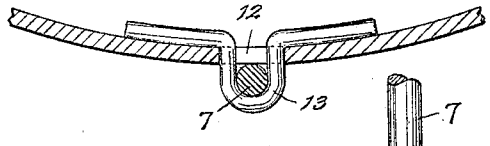


Fig. 7.

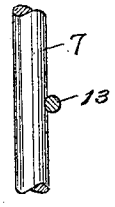
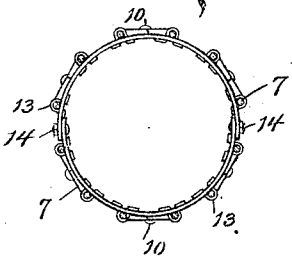


Fig. 6.



Witnesses:

C. F. Keeney.

Anna P. Faust.

Inventor.

Frederick Lichtfeldt

by Benedict, Morsell and Green

Attorneys.

UNITED STATES PATENT OFFICE.

FREDERICK LICHTFELDT, OF MILWAUKEE, WISCONSIN.

TREE GUARD OR PROTECTOR.

No. 801,325. Specification of Letters Patent. Patented Oct. 10, 1905.

Application filed April 23, 1902. Serial No. 104,320.

To all whom it may concern:

Be it known that I, FREDERICK LICHTFELDT, residing at Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented a new and useful Improvement in Tree Guards or Protectors, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

This invention relates to improvements in tree guards or protectors.

The object of the invention is to produce an ornamental, attractive, and efficient guard or protector for trees which is simple, of easy and inexpensive construction, and which may be readily and easily assembled even by persons unskilled in the art. This and other objects I attain in a device embodying the elements formed and arranged as described in the specification and illustrated in the drawings accompanying this application, in which—

Figure 1 is an elevation of half a guard or protector embodying this invention. Fig. 2 is a cross-sectional view taken just above one of the hoops hereinafter described. Figs. 3, 4, and 5 are detail views of a portion of the device and showing one wire or one-half of one of the pickets and the means for tying or binding the pickets to the hoop. Fig. 6 is a cross-sectional view similar to Fig. 2, showing a modified form of hoop. Fig. 7 is a side elevation of a portion of a picket and illustrates the positions of the picket and tie after the same have been assembled.

Throughout the several views like elements are denoted by like characters.

The guard or protector preferably consists of a number of pickets each formed of a single integral steel wire 7, bent at its center to form the picket-top 8, and at two points between the top and bottom of the picket each half of the picket or the wire forming the same is coiled about the other wire, as shown at 9 and 10. Elsewhere than near the top and at the points 9 and 10, where the legs of each picket are twisted about each other, the legs of each picket and of the several pickets in the completed guard are straight and substantially parallel with each other.

In constructing the guard or protector a suitable number of pickets, depending upon the circumference of the guard to be constructed, will be placed at right angles to three or any other suitable number of metallic bands 11. Each band 11 in line with each wire 7 is provided with an opening or perforation 12, preferably rectangular in form. A staple 13, of wire or other malleable metal, is placed over each wire 7 and inserted within openings 12, so that its ends project beyond bands 11. The ends of the staples are then bent over away from one another, as shown in full lines in Fig. 4, so as to lie along the bands 11. Each end of each band is provided with a bolt-hole, and after the pickets have been bound to the bands by means of the staples or binding members 13 the bands will be bent until said bolt-holes register, so that a bolt 14 may be inserted to lock the bands, and thereby the guard in its curved or cylindrical form. It will be seen that as the bands are curved away from the pickets the distance across from end to end of the inner edge of each opening 12 of the bands will be decreased, and the distance between the point where the picket contacts with the band and the point where each end of the staple contacts with the band is increased, and the three elements—namely, the band, picket, and staple—are thereby bound firmly together. The bands 11 are secured to the parallel portions of the pickets and at points where the legs are most widely separated from each other and where they are individually unsupported against lateral strain.

From the lower band 11 the pickets are bent outward to form an enlarged base, which will be of advantage either if the guard is rested on the ground or if the base is buried.

In Fig. 6 I have shown the bands formed in two sections bolted together, and it will be seen that any number of sections may be employed. When the bands are made in sections, the guard may be knocked down for shipment.

The bands may be made of spring or sheet metal, so that when they are separated the guard will straighten out to a flat form.

Having thus described my invention, what I claim is—

1. A tree-guard, comprising a number of pickets each picket consisting of a wire folded at its middle point forming the upper end of the picket and two legs thereof arranged at a little distance from and mostly parallel to each other except at the top and below the lowest band and approaching and twisted about each other at a plurality of points between the top and the bottom of the picket, all parallel portions of the legs of each picket being at substantially equal distances from

each other and in the guard these parallel portions of adjacent pickets being the parts of different pickets nearest each other, and a plurality of metal bands adapted to encircle a tree and around which the pickets are arranged and to which the straight parallel portions of the legs of the pickets are secured the bands being disposed one medially between the top ends of the pickets and the nearest intertwists of the legs thereof, one band medially between each two adjacent intertwists of the pickets, and one band medially between the lowest intertwists of the pickets and the lower ends of the pickets.

2. A tree-guard, comprising a number of pickets each picket consisting of a wire folded at its medial point forming the upper end of the picket and two similar and complementary legs arranged mostly parallel to each other at a little distance apart and approaching and twisted about each other at a plurality of points between the top and the bottom of the picket at a distance from the top and from the bottom and medially thereof, all parallel portions of the legs of each picket being at substantially equal distances from each other and in the guard these parallel portions of adjacent pickets being the parts of different pickets nearest each other, a plurality of medial bands adapted to encircle a tree and around which the pickets are arranged and to which straight parallel portions of the legs of the pickets at a distance from the ends and from the twisted parts of the legs are severally secured, the bands being disposed medially between the top and bottom ends of the pickets, and the nearest intertwists of the legs thereof and medially between the intertwists of the pickets the legs of each picket being at all points between the top and bottom bands at the same distance apart except where they are twisted together, and staples about the legs severally and through apertures therefor in the bands, the staples being clenched on the opposite sides of the bands.

3. A tree-guard, comprising not less than three circular bands of substantially equal diameter at distances apart one above the other, a plurality of wire pickets located around and secured to the three bands, each picket consisting of a wire folded medially forming the top end of the picket the two legs of each picket being substantially parallel with each other from near the top above the upper band to near the bottom below the lowest band except that the legs of each picket between the top band and the middle band and again between the middle band and the lowest band approach and are twisted about each other thereby interbracing each picket medially between each two of the bands, and staples about each leg severally of every picket and through and clenched to each band where each leg crosses a band, and no staple going around more than one leg of one picket, the nearest legs of the adjacent pickets in each case being substantially as far from the legs of the intermediate picket at their nearest approach thereto, as the legs of each picket are from each other where they are parallel with each other.

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

FREDERICK LICHTFELDT.

Witnesses:

ANNA V. FAUST,

A. L. MORSELL.