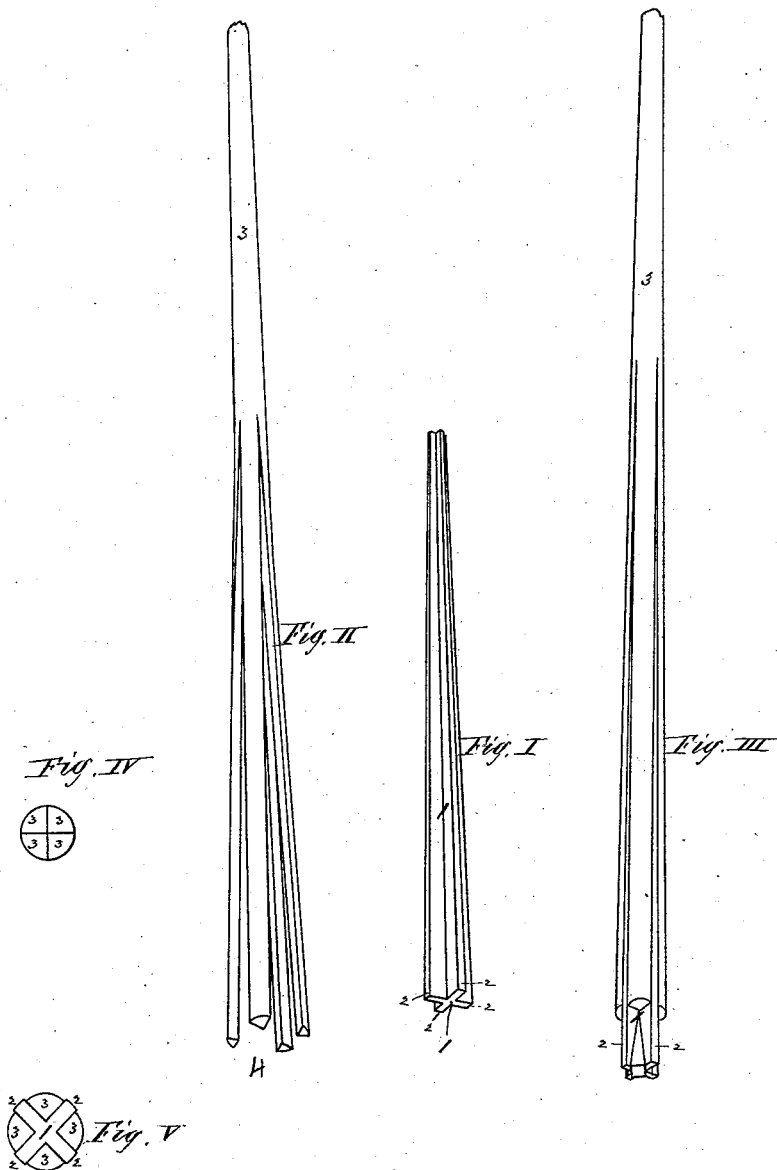


(No Model.)

D. C. HULL.
WHIP.

No. 261,550.

Patented July 25, 1882.



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UNITED STATES PATENT OFFICE.

DAVID C. HULL, OF WESTFIELD, MASSACHUSETTS.

WHIP.

SPECIFICATION forming part of Letters Patent No. 261,550, dated July 25, 1882.

Application filed April 22, 1882. (No model.)

To all whom it may concern:

Be it known that I, DAVID C. HULL, of Westfield, in the county of Hampden and State of Massachusetts, have invented a new and useful Improvement in Whips, of which the following is a specification and description.

The object of my invention is to give a whip its desired size in diameter by building it out or increasing its size from the inside, and I accomplish this by the means substantially as hereinafter described, and illustrated in the accompanying drawings, in which—

Figure I is a perspective view of the angular spike which I use in the construction of whips according to my invention. Fig II is a perspective view of a solid piece of rattan of suitable size for the construction of a whip according to my invention, split into four divisions to receive the spike. Fig. III is a perspective view of the same with the spike partially inserted. Fig. IV is an end view of a solid piece of rattan of suitable size in diameter for the construction of a whip according to my invention, showing the points where the longitudinal divisions are made. Fig. V is an end view of the same size of rattan divided, and with the angular spike inserted between the divisions, showing the size to which the same rattan is inserted to form a whip.

In the drawings, 1 represents a spike made of metal or of any other suitably rigid and cheap material, and provided with any desired number of wings, as 2, each two adjacent wings forming an angle with each other of any desired degree, and this spike I make of any desired length and taper, according to the style or length of whip of which it is to form a part.

I take a solid piece of rattan of suitable length, and of a diameter, for example, as shown in Fig. IV, and if the spike is made with four wings or angles I split this piece of rattan at one end, as at 4, and for such a portion of its length as the spike is to extend, dividing such split portion of the rattan into four substantially equal divisions or portions. I then slightly separate these portions and insert endwise the spike 1, and when fully inserted the spike forces these divisions outward, so that the outer surfaces of the wings 2 and the outer surfaces of the divisions of rattan are approximately on the same cylindrical plane, as shown in Fig. V. Before the spike

is inserted, however, suitable glue or other adhesive substance may be introduced into the split portion of the rattan between the divisions, and may also be applied to the spike, and when the latter is inserted in place the whole may be wound with cord or other material to keep the divisions of rattan together and against the spike until the glue or cement is thoroughly dry, when the cord may be removed and the exterior surface turned down to a true taper, if desired. Instead of turning it, however, the exterior may be covered with cloth or other material and afterward platted in the ordinary manner, and will then possess the requisite smoothness and desirable taper to form a whip of the desired character; or, if it is turned off in a machine to give it the desired taper, it may then be covered and platted; or it may be colored and painted and finished in imitation of any desired wood.

If it is desired to make the spike of a lighter material than metal, any other substance may be used, and they may be pressed or formed up in molds from hard rubber, paper, papier-maché, composition of any kind, or such material as it is desired to use, and a spike of any desired angular form may be used—as, for example, instead of four wings, as 2, three or five may be used, only the rattan or other material of which the whip is made must be split or divided into a corresponding number of divisions, between which the spike is inserted.

In the construction of whips as now practiced, as the size in diameter of good rattan increases the price is increased, and in a ratio much greater than the increase in size, so that the larger pieces of rattan become too expensive to manufacture whips when used in the solid piece, and, as a consequence, in the construction of each whip a number of the smaller and cheaper pieces of rattan are taken and placed around a central core and glued and bound thereto, the whip being increased in size or built up on the outside by the addition of separate small pieces, and when dry the outer surface of the whip is turned off to a smooth and uniform taper. This construction, on account of the greater number of pieces used to make the whip of the required size, does not make so strong and durable a whip as when a single solid piece is used, and the labor and expense in building a whip to the

required size on the outside are much greater. By my invention I am enabled to use a single solid piece, although much smaller than the solid pieces required in the ordinary construction of whips, and the whip when made is much stronger and more durable than whips of the same size made from a number of small pieces glued together on the outside of a central core. As an example of the advantage in this saving of expensive stock, it will be seen by reference to Fig. IV that the size of the rattan-stick is very much smaller than the size of the whip to be made, (shown in Fig. V,) and yet the amount of rattan-stock in both is precisely the same, and that in the form of a solid piece or stick.

Of course when the whip is platted in the ordinary manner, or colored or painted, or finished in any other style, it may be mounted in any desired ornamental manner.

Of course if it is desired to use up smaller pieces these may be placed in the angles of the spike and the whip be built up on the outside in the ordinary manner instead of splitting a solid piece and inserting the spike between the divisions; but in the construction of whips of the better class the use of a solid

piece of rattan with the angular spike inserted between the split divisions of the rattan is far preferable, because the spike only extends along that portion of the whip which is to be enlarged, and that portion adjacent to the tip not being split is solid and in a single piece, and is much stronger and more durable on that account.

If this spike is made of any other material than metal, the ordinary metal wedge may be inserted into its end by first removing a corresponding wedge-shaped portion at the end of the spike and securing the wedge therein, as shown in Fig. III; but when made of metal no wedge may be required.

Having thus described my invention, what I claim as new is—

In an improved whip, the combination of a single solid stick or whip-body split from one end for a portion of its length into any desired number of divisions, and an angular spike provided with wings inserted endwise between said divisions and secured substantially as described.

DAVID C. HULL.

Witnesses:

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ERNEST L. HULL.