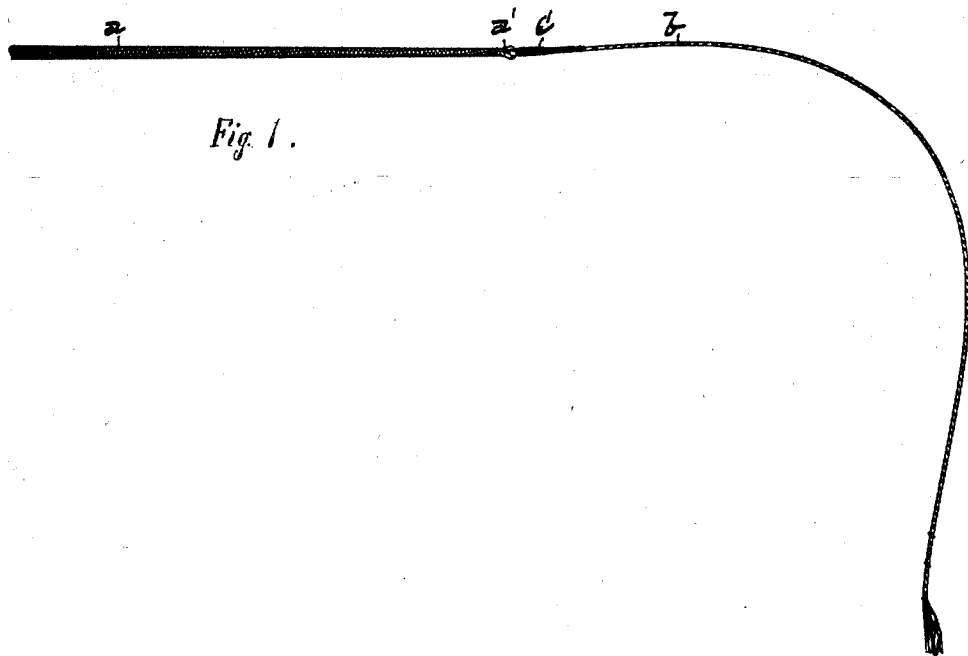


(No Model.)

F. A. SANFORD.
WHIP.

No. 503,332.

Patented Aug. 15, 1893.



WITNESSES:

Francis W. Rice.
J. E. Chapman

INVENTOR

F. A. Sanford
BY
James Chapman
ATTORNEYS.

UNITED STATES PATENT OFFICE

FREDERICK A. SANFORD, OF WESTFIELD, MASSACHUSETTS.

WHIP.

SPECIFICATION forming part of Letters Patent No. 503,332, dated August 15, 1892.

Application filed April 5, 1892. Serial No. 427,810. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK A. SANFORD, 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, reference being had to the accompanying drawings, forming part thereof.

My invention relates to whips and especially to means for connecting the snap to the tip thereof. But two kinds of snaps are used in the manufacture of whips, the one being what is known a "twisted" snap, in which the strands of silk of which it is composed are twisted spirally about each other, and which is made with a plain end, and the other being a braided or plaited snap, in which the component strands are braided together, and which is provided with a loop at the end which is formed by the braiding machine. The last mentioned form of snap is secured to a whip by passing the loop on the snap partially through the loop at the tip end of the whip, and then passing the body of the snap through its own loop and drawing it tight. This form of snap, owing to its tendency to drop from an erect position, thereby greatly impairing the appearance of the whip, and its constant liability to become detached from the whip, is generally applied to the cheaper grades of whips merely, and is not considered suitable for a fine whip. Various ways for securing the first mentioned form of snap, the twisted snap, to the whip have been devised, but the almost invariable practice among whip manufacturers is to make the connection by inserting the end of the snap through the loop on the whip, together with an independent strand of thread or cord to then pass the two ends of said independent thread or cord in opposite directions around the outside of said loop, knot said ends together upon both sides of the loop, and then to braid or plait the end of the snap, the ends of said independent cord, and the body of the snap together for an inch or more from the end of the whip, completing the operation by winding a wrapping of thread about the free ends of said braided strands. The object of the independent strand of thread or cord and of knotting it about the loop of the whip as stated, is to cause the snap

to stand erect, it having been found that without such strand the snap soon drops to an inclined position like the braided snaps before mentioned. The operation of thus connecting twisted snaps to whips is performed entirely by hand and it adds very materially to the cost of production of the whip. Moreover, the braided and wrapped portion thereof must be subsequently sized, rolled and varnished to give increased stiffness and compactness thereto, which still further increases the cost of production. I have discovered that these twisted snaps can be securely fastened to the whip in such manner as to insure erectness of position thereto, and at a cost which is trifling as compared with that attending the method of fastening heretofore employed, by the use of wire in the manner hereinafter stated, as the medium for securing the snap to the whip.

My invention consists, therefore, in a whip having a snap connected thereto in the manner hereinafter fully described and particularly pointed out in the claim.

Referring to the drawings, in which like letters designate like parts in both views, Figure 1 is a view of the upper end of a whip embodying my invention. Fig. 2 is a similar view thereof, drawn to a larger scale.

The letter *a* designates the whip, and *b* the twisted snap, the whip having the usual loop *a'* at the tip end thereof. In securing said snap to the whip according to the preferred manner of practicing my invention, I pass the end of the snap through the loop *a'* and bend said end back against the body of the snap. I then take a strand of fine wire *c* and pass it through the loop *a'* until its ends are about of equal length, and then wind said ends closely about the body of the snap and its turned back end, beginning said winding directly at the end of the loop *a'* and continuing it a short distance beyond the extremity of the turned back end of the snap, as shown more clearly in Fig. 2. The compression of the body of loop *a'* between the closely wound wire and the bend in the snap, and the stiffness of the convolutions of the wire, cause the snap to stand erect and to retain such position permanently. The operation of thus winding the wire about the snap can be performed by machinery and done very quickly,

thus reducing the cost to a minimum, besides dispensing with the subsequent operations of sizing, rolling and varnishing, as the wire will preferably be japanned or otherwise finished before being applied to the whip. The connection between the snap and whip thus made has a neat and pleasing appearance, and enables twisted snaps to be economically applied to the cheaper as well as to the finer grades of whips. In order to secure a more nearly round body upon which to wind the wire, I prefer to partially untwist the strands of the bent back end of the snap which strands will then arrange themselves about the body of the snap in such manner as to form an approximately round body to receive the wire.

Instead of winding both of the ends of the wire about the snap as above described, one of said ends can be laid against the snap and the other end wound about both the snap and said first mentioned end, within the spirit of my invention, and the snap itself instead of being passed through the loop on the whip

can be laid beside said loop and then wound with the wire and so secured to the whip, but I prefer to use the first described mode of applying the wire, as it can be performed very quickly and cheaply, the operation occupying but one fifth of the time heretofore required for securing a twisted snap to a whip.

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

A whip having a loop at its tip and a snap secured thereto by having its end passed through the loop and then doubled upon itself, and a strand of wire also passed through the said loop and wound about the snap continuously from its point of contact with the whip loop to some distance upon or beyond its turned back end, substantially as set forth.

FREDERICK A. SANFORD.

Witnesses:

W. H. CHAPMAN,
J. E. CHAPMAN.