A. C. Rand,

Whip.

No. 101,913. Patented Apr. 12. 1870.

Fig. 3.

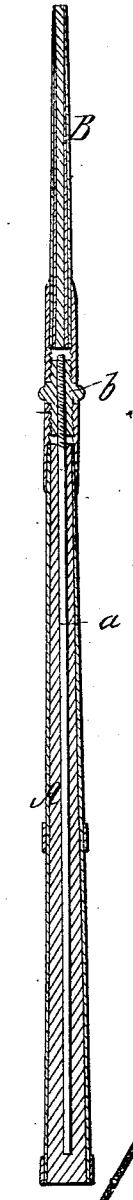

Fig. 1.

Fig. 2.

Witnesses;
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ADDISON C. RAND, OF WESTFIELD, MASSACHUSETTS.

Letters Patent No. 101,913, *dated April* 12, 1870.

IMPROVEMENT IN WHIPS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, ADDISON C. RAND, of Westfield, in the county of Hampden and Commonwealth of Massachusetts, have invented a certain new and useful Improvement in Whips; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings making a part of this specification, and to the letters of reference marked thereon, in which—

Figure 1 is an elevation of said improved whip; and

Figure 2 is an axial sectional view of the coupling by which the two portions of the whip are connected.

My invention consists primarily in a whip, the butt part or handle of which is cored with flexible and elastic metal wire, while the tip part is made of or cored with whalebone or rattan.

My invention also consists in constructing the stock of a whip in two pieces, which are united by a pecular coupling device.

The object of the described arrangement is to allow the removal of the old tip and the application of a new one to the handle-section, thus enabling the owner to use the latter until it is worn out, whereas in an entire stock the tip-end is worn out much sooner than the handle portion, thereby making the whole valueless before the butt of the whip is in any way impaired; and to enable the manufacturer to use a different material for the core or base of the elastic tip section than for the stiffer handle section, on account of the cost of such elastic material, or convenience of manufacture,

The construction of the invention is as follows:

A is the handle section or butt of the whip-stock, which is made in the usual way, except that its center is formed of an elastic metal wire or core piece, *a*, the stock being covered by braiding, or in any other manner, and ornamented as desired. As by my method of construction the handle section can be used to wear out several tips, it may profitably be made of better material and finish than if it were made in one piece with the tip.

The other section, B, which I denominate the tip section, is constructed of rattan or whalebone, covered, by braiding or otherwise, or with a core of rattan or whalebone. The metallic coupling may be made up of the male part C, and corresponding female part D.

In one end of C is formed a cylindrical recess of such a diameter that the smaller end of A can enter it, a thread being cut on the inside of the recess to engage with the entered end of A. The latter may also be cemented, or otherwise firmly secured in the recess.

At the opposite end of C a male screw-thread is cut upon the cylindrical projection *a*, and a corresponding female screw-thread upon the inside of D, the external diameter of C and D at the joint being about the same.

As the tip section is generally made tapering, I prefer to form the cylindrical bore through D of a like taper, and to insert the tip from the threaded end of D, so that it will be grasped tightly by D, it being then cemented, or otherwise permanently fastened thereto.

A milled rim, *b*, may be advantageously formed upon C, by which to bring the two sections of the coupling more snugly together. When the two parts of the coupling are thus attached to the respective sections of the whip, the two can be tightly screwed together, so as to form a continuous whip, the spring or elasticity of which is not injuriously diminished by the coupling.

The latter is made as light as is consistent with the requisite strength, so as not to interfere with the balance or poise of the whip when swayed by the hand.

Figure 3 represents a sectional elevation of the whip, showing the elastic and flexible metal core *a*, which runs through the center of the main part A of the stock, the stock-forming strips being preferably built around it, and the wire preferably extending through the solid part of the coupling, said coupling being shown in fig. 3 as having screw-spindles at both ends upon which the coupling-sockets are screwed.

The male part of the coupling is also shown as nut-threaded through its center, so that the coupling is firmly secured to the end of the wire or core, the wire being also screw-threaded at its end, as seen in said fig. 3.

By making the handle A with a metal core, *a*, running through it as shown, and making the tip B of or coning it with whalebone or rattan, I obtain the advantage of the strength, elasticity, and flexibility of the wire (preferably steel) in the handle, where the strength is needed, while by making the tip of whalebone or rattan, or cored with whalebone or rattan, I secure the desirable and requisite lightness in the tip, the coupling enabling a new tip to be applied whenever the old one becomes worn, and by making the coupling as shown, namely, with a tubular screw-threaded connector, I secure a very strong connection of the coupling to the handle A

Having described my invention,

What I claim as new therein, and desire to secure by Letters Patent, is—

A whip having a handle A, through which runs an elastic metal-wire or core *a*, and a tip B, which is formed of or cored with whalebone or other suitable non-metallic material.

Also a coupling having at each end a socket to which the adjacent end of the handle or tip is sucured, and between these ends a solid screw-spindled connector *b*, having a central nut-threaded bore into which the end of the wire core screws.

In testimony whereof I have hereunto set my hand this 30th day of September, A. D. 1868.

A. C. RAND.

Witnesses:

J. P. BUCKLAND,

E. J. SOMMER.