

(No Model.)

M. O. FELKER.
WHIP.

No. 511,838.

Patented Jan. 2, 1894.

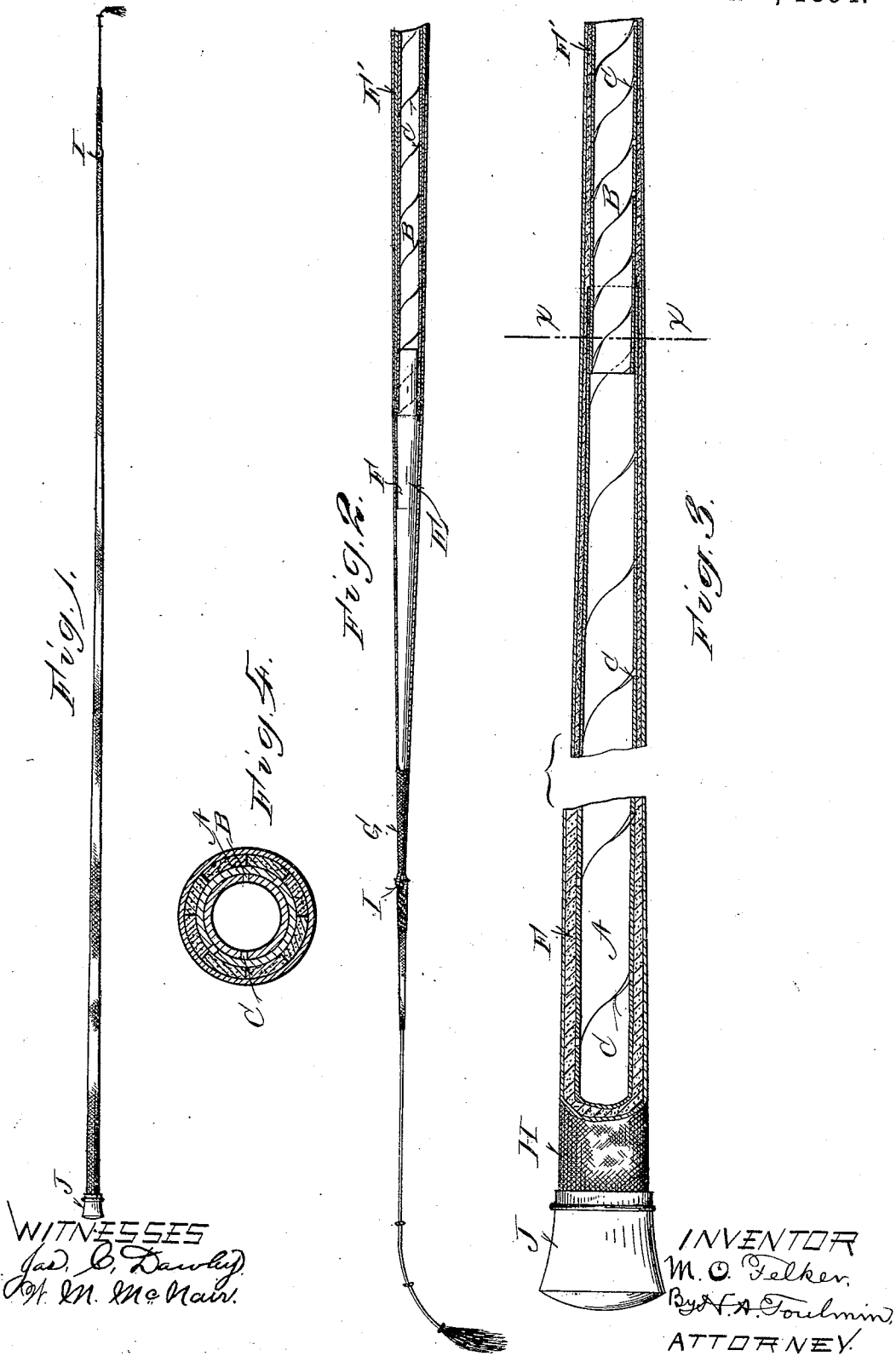


Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

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SPECIFICATION forming part of Letters Patent No. 511,838, dated January 2, 1894.

Application filed July 10, 1893. Serial No. 480,022. (No model.)

To all whom it may concern:

Be it known that I, MELANCTHON O. FELKER, a citizen of the United States, residing at Springfield, in the county of Clark and State of Ohio, have invented certain new and useful Improvements in Whips, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to an improved article of manufacture consisting of a buggy or carriage whip made in the manner and of the construction hereinafter fully described, and particularly pointed out in the claims.

In the accompanying drawings on which like reference letters indicate corresponding parts: Figure 1, is a side view of a whip embodying my improvements; Fig. 2, a longitudinal sectional view of a portion of the whip and a side view of another portion. Fig. 3, is a longitudinal sectional view on an enlarged scale of a portion of the body of the whip. Fig. 4, is a transverse sectional view on the line *xx* of Fig. 3.

The core of this whip is constructed in sections, preferably two in number. One section is shown at A and the other at B. Each section is composed of a strip of thin, resilient material, such as sheet steel, spirally wound after the fashion of a curl. The ribbon forming section B, is thinner and narrower than that forming section A. The strips are so curled or wound that a continuous spiral space C intervenes between the edges, so that the resulting device is in the form of what may be termed an open spiral. The section A is slightly tapered from the hand-part outward. The section B is preferably slightly tapered from where it joins with the section A to where it terminates; but the section B may be of constant diameter. In uniting the two sections together the section B is inserted into the larger end of section A and passed on through it until it binds in the contracted end of the section A. A is then uncoiled, B adjusted farther on, and A allowed to recoil, to permanently hold B. Thus the two sections are firmly fastened together and a good joint is made. These sections form the hollow flexible core upon which the whip is built, the core being strong and light. In the outer section B I place and secure a tip E of raw-

hide or whale-bone, by uncoiling the end of B, and inserting the tip. The spiral ribbon of which the core is made serves by its recoil to tightly clamp and hold the tip, as seen in Fig. 2. From about the point F, as seen in Fig. 2, I cover the elastic core sections with strips F', of wood, preferably rattan. The strips are glued upon the core, and to hold them while the glue is setting they are wrapped with cord. When perfectly dry and hard the whip is placed in a machine, sometimes called a lathe, in which it is turned off or reduced from the exterior, so as to be made perfectly smooth, even and true, and to be given the proper taper and size. This accomplished, the usual braiding or plaiting of the exterior is done, by machines well known in the art of whip making, the color, style or finish of the braiding or plaiting being varied. A short section of this plaited covering is shown at G in Fig. 2, and H in Fig. 3, as well as being suggested in Fig. 1. The usual lash is attached to the loop, commonly formed by the plaited covering, as suggested at I. A cap J of any desired pattern or finish is fitted to the handle-end of the core A, and the rattan strips and covering are terminated against the end of the cap. Thus it will be seen that in my improved article I have a highly resilient and light and strong whip, the flexibility of which is obtained by the highly elastic core, while the necessary stiffness to make the whip handle well and act nicely, is obtained from the rattan covering, and the slightly thicker metal of the inner section of the core. Again the outer spiral section forms a good means of holding the whale-bone or raw-hide tip, while the plaited wrapping gives it the size and finish. Furthermore, the joint between the sections of the core and the joint where the whale-bone or raw-hide tip is fastened to the outer section of the core are vital points in the construction of this whip. The core being constructed of a spiral ribbon, naturally recoils to its normal position after being unwound or twisted back as it were. Thus when the outer section has been drawn nearly through the inner section and begins to bind, while the lap between the two sections is yet too great the outer section is slightly uncoiled allowing the

inner section to be moved farther on. When at the right point the outer section is released and its recoil acts to form a lasting grip upon the inclosed inner section. In testing the practicability of this whip, it has been shattered to pieces, yet this point remains intact. So in connection with the tip of the outer section, the core is slightly unwound, the tip inserted, the core freed and the recoil takes effect and permanently grips the tip.

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

1. As an improved article of manufacture, the herein-described whip, the same consisting of a core made in sections, one of larger diameter than the other and tapering from end to end, both formed of an open spiral flexible ribbon, the smaller one inserted through the larger one, the smaller end of the larger section being normally smaller than the large end of the smaller section, for the purpose described, a tip secured to one end of the outer section, a wooden covering on

the outside of the core, and a plaited wrapping on the outside of the covering and tip.

2. In an improved article of manufacture, the herein-described whip core, made in sections, each section being composed of a strip of resilient material made in the form of a spiral, one section of larger diameter than the other and tapering from end to end, and the smaller one inserted through the larger one, the smaller end of the larger section being normally smaller than the large end of the smaller section, for the purpose described.

3. In an improved article of manufacture, the herein-described whip core composed of a strip of resilient material wound to form an open spiral, and a raw-hide or whale-bone tip inserted into the core by slightly uncoiling the latter, and permanently held therein by the recoil of the core.

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

MELANCTHON O. FELKER.

Witnesses:

OLIVER H. MILLER,
W. M. MCNAIR.