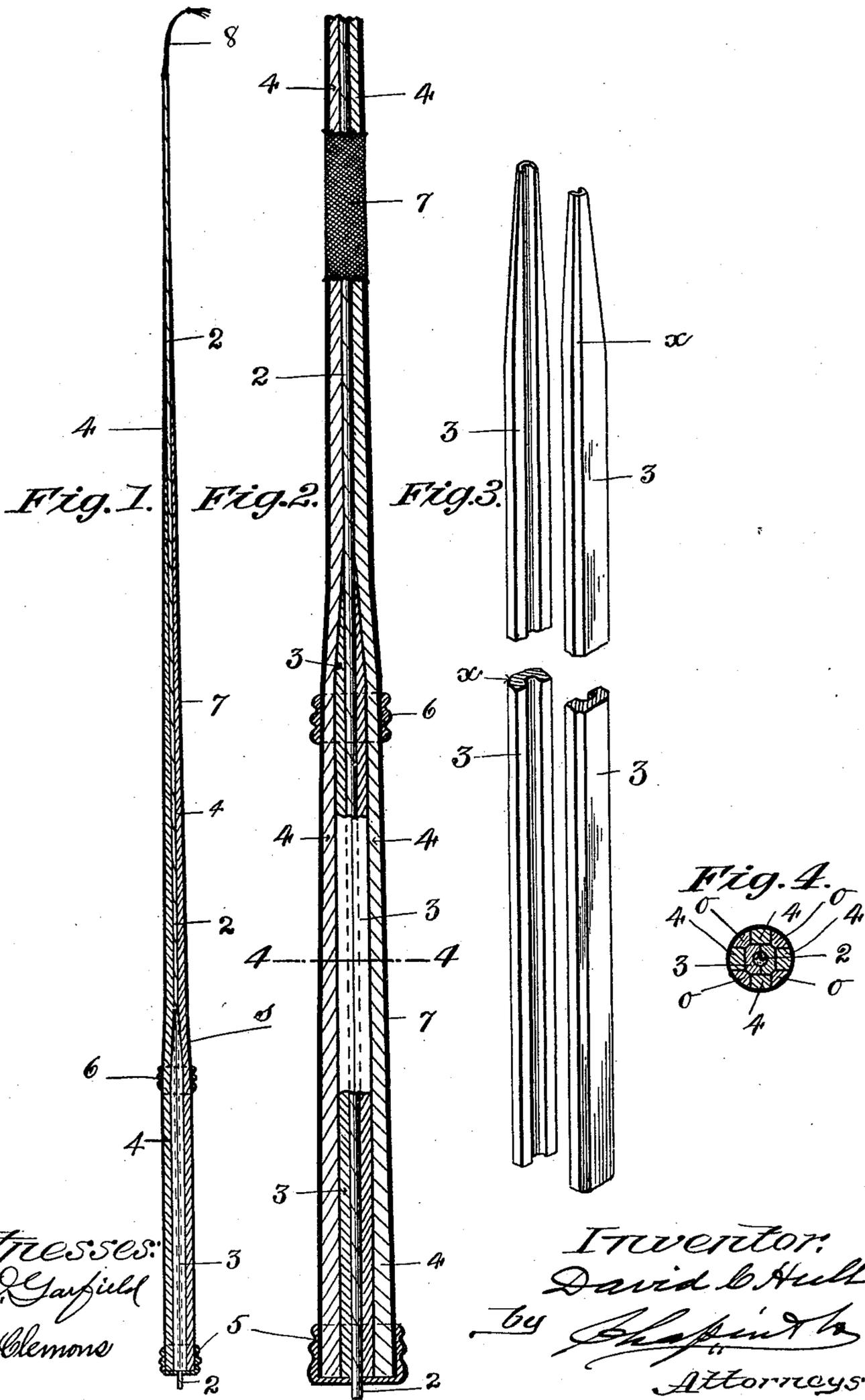


D. C. HULL.
WHIP.

(Application filed May 12, 1902.)

(No Model.)



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UNITED STATES PATENT OFFICE.

DAVID C. HULL, OF WESTFIELD, MASSACHUSETTS, ASSIGNOR TO UNITED STATES WHIP COMPANY, OF WESTFIELD, MASSACHUSETTS, A CORPORATION.

WHIP.

SPECIFICATION forming part of Letters Patent No. 711,897, dated October 21, 1902.

Application filed May 12, 1902. Serial No. 106,870. (No model.)

To all whom it may concern:

Be it known that I, DAVID C. HULL, a citizen of the United States of America, residing at Westfield, in the county of Hampden and State of Massachusetts, have invented new and useful Improvements in Whips, of which the following is a specification.

This invention relates to whips, and to that class in which the stock thereof is composed of such elements as conduce to the requisite rigid butt weight and permanent flexibility of the upper portion thereof and which contain in a finished whip visible evidence of the presence of the internal structural feature which insures said permanent flexibility; and the invention consists in the peculiar structural combination of the various parts of the whip, all as hereinafter fully described, and more particularly pointed out in the claims.

In the drawings forming part of this application, Figure 1 is a longitudinal sectional view of a whip containing my improvements, showing the load elements of the stock side by side, as in a completed whip, and the outer tapered form of the upper ends of the same and showing the lower end of the whip-core extending downwardly beyond the lower end of the stock and from the upper extremities of said load elements through the stock centrally to the tip. Fig. 2 is a similar view to Fig. 1, showing the lower portion of the stock and said load elements with the sides partly broken away, and thus exposing parts of the whip-core inclosed therein. Fig. 3 shows broken sections of said load-pieces and illustrates their internal and external conformation, the parts of said sections being of about the dimensions used in a whip having an ordinary-sized butt. Fig. 4 is a cross-sectional view on line 4 4, Fig. 2, showing the relative arrangement of the sidings and chink-pieces around the load-pieces and the core between the latter.

Referring to the drawings, 2 indicates a centrally-located core, preferably of twisted rawhide; but any other substance having similar characteristics as to firm flexible qualities and toughness may be used without departing from my invention. Said rawhide core 2 extends from beyond the butt or lower end of

the whip-stock and through the butt-cap 5, as shown in Figs. 1 and 2, and through the center of said stock between said load elements to the tip end thereof, as shown in said figures. The extension of the lower end of said core downwardly through and considerably beyond the cap 5 of said butt constitutes for applicant, mercantilely, an important structural feature of the class of whips herein described and shown, for the reason that it constitutes visible evidence of the extension of said core entirely through the whip-stock, the presence thereof at the tip of the stock being plainly determined, and thus the purchaser has tangible proof that he is buying a whip having a rawhide center running from beyond the butt thereof to the tip of the stock. Said rawhide core 2 is made, as usual, by hard twisting a strip of "green" or moist rawhide and drying it, whereby it becomes very tough and has an effective spring quality not excelled by any other substance for the core of a whip. The said load-pieces 3 are preferably of cast-iron, having their inner opposite sides grooved, as shown, to receive and bind closely therebetween said rawhide core 2, as shown in Figs. 1 and 2. Said load-pieces have their upper extremities preferably tapered, as shown in Figs. 2 and 3, whereby the tapered parts of the united load-pieces when enveloped within the stock parts of the whip above the lower end or usual hand-grasped part of the stock contribute to the desirable gradual taper of the united whip parts about at *s*, Figs. 1 and 2. Furthermore, the longitudinal outer corners α of said load-pieces are chamfered or flattened, so that the flattened edges of the chink-pieces *o*, (see Fig. 4,) which engage said chamfered surface of the load-pieces, come to a full bearing against said chamfered corners, thus effecting face-to-face positions of all of the sidings 4 against the load-pieces 3, the stock sections or sidings being bound together by the outer braided covering 7 and the usual interposed wrappings. An ornamental band 6, Fig. 2, called by whip-makers a "button," may be placed on the finished whip-stock. A snapper 8 or an ordinary lash may be attached to the extremity of the stock.

Having thus described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. A whip-stock comprising the usual sidings, and chink-pieces therebetween having inner flat edges, rigid metallic load-pieces arranged side by side inclosed by said sidings, having a core-groove therebetween, tapered upper extremities, and flat outer corners with which said flat edges of the chink-pieces engage, a perforated butt-cap inclosing the lower extremities of said stock parts, and a rawhide core extending from a point beyond the butt of the whip centrally through said cap and between said sidings and the stock parts therebeyond, to the upper extremity of the stock, and a suitable outer covering inclosing said parts.

2. A whip-stock having the usual sidings, and chink-pieces, metallic load-pieces secured side by side having a longitudinal groove therebetween extending upwardly from the butt of the whip within said sidings, and having tapered upper extremities, a rawhide core extending from a point outwardly beyond the butt-end of the whip through said groove and thence upwardly through the stock centrally, to the tip thereof, and a suitable covering for said stock whereby said sidings and chink-pieces are tightly bound around said load-pieces and core.

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