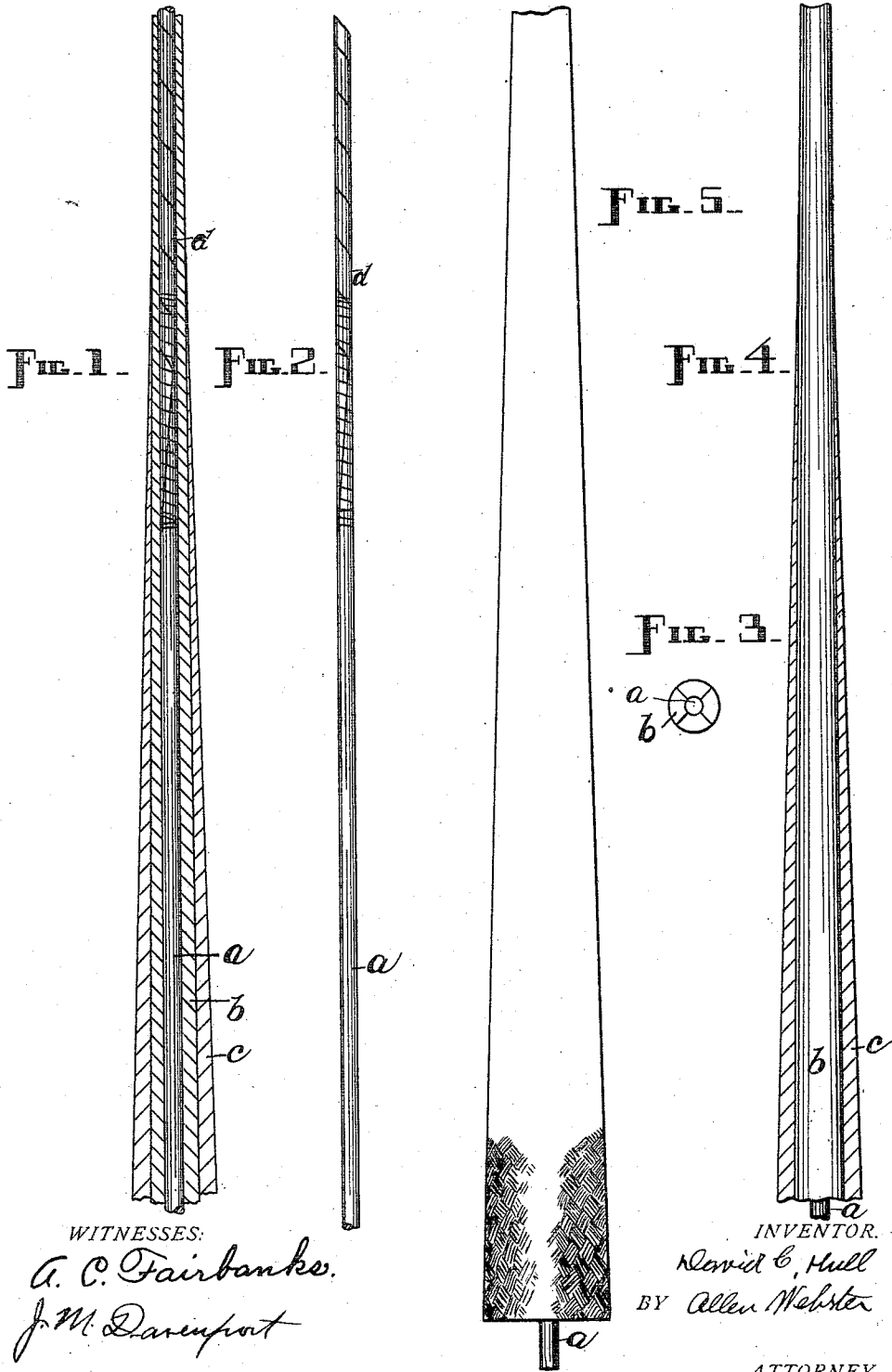


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WHIP.

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983,057.

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UNITED STATES PATENT OFFICE

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WHIP.

983,057.

Specification of Letters Patent.

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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 a new and useful Improvement in Whips, of which the following is a specification, reference being had to the accompanying drawings and letters of reference marked thereon.

The object of my invention is to provide an improved construction of whip whereby the cost may be lessened and the whip rendered more serviceable.

I accomplish the object of my invention by the construction herein shown.

In the accompanying drawings, in which like letters of reference indicate like parts, Figure 1 is a side view in section of a portion of a whip stock constructed according to my invention; Fig. 2 is a side view of the core or center; Fig. 3 is an end view of the butt portion of the core or center with ratan mounted thereon; Fig. 4 is a side view of a part of the butt portion of a whip showing in section the enlargement by the application of wrappings, as hereinafter explained, and Fig. 5 is a side view of the butt portion of a finished whip.

In the present embodiment of my invention, I employ a steel rod *a* extending from the butt portion of the whip to, by preference, about one-third the length of the whip, the rod thus forming the center or core for this portion of the whip. I attach to the end of the steel rod a center or core of rawhide or other usual material employed for that purpose, and prefer that the splicing be in the manner illustrated in the drawing; that is to say, the two ends, being chamfered or cut at an angle, are cemented to each other and wound with strong linen thread. This I find to be the most economical manner of joining the two, although various other means of making this joint may be employed.

Over the combined metal and rawhide core thus produced I place ratan strips *b* tapering from the butt, as shown in the drawings, or I may build up on said core or center in any other manner. I then wrap about the ratan strips a covering *c* in order to give the requisite "body" or diameter to the butt portion of the whip. For this purpose I prefer to employ inexpensive paper, wrapping the same on in such manner that

it is thickest at the butt portion and tapering toward the tip of the whip, after which the usual coverings are placed on the outside and the whip plaited or finished and ornamented in the usual manner.

I am aware that a whip has heretofore been made having metal in the butt or handle portion. This, however, has been employed for the purposes of weight, and the metal so inserted has been termed "load", the object, as heretofore stated, being for the purposes of giving the requisite weight at the handle end. Such metal, however, forms no part of the center or core and is rigid while with my construction the steel rod gives the desired degree of elasticity while adding greatly to the strength of the finished product.

I am aware also that whip butts have heretofore been wrapped for the purpose of building up to give the requisite size or diameter. Where, however, the rigid metallic load has been employed in the construction of the whip it has been found that the whip bends most readily at the end of such load and the wrapping material becomes ruptured at that point, so that it has been found necessary, in a whip so constructed, to build up with a strong and therefore expensive material which would not rupture easily.

I am also aware that a building-up material has heretofore been employed in a whip having a continuous rawhide or whalebone core or center. With such construction, however, the whip is liable to bend in short curves within the length covered by the building-up material and cause rupture of such covering unless a strong wrapping material be employed. With such construction, therefore, it has been found necessary to employ a strong wrapping material more expensive than the cheap material I am able to employ because of the fact that, with my construction, the bend must of necessity be in long curves and much more gradual so that danger of rupture of the covering is entirely avoided, and therefore a very inexpensive building-up material may be used, with the use of a spring metal rod. I am also enabled to use ratan of less thickness than would otherwise be required, thus further lessening the cost of the whip, as the butt may be built up to the desired size by a cheap building-up material.

The butt end of a whip is frequently marred and injured by being violently brought in contact with the floor or earth, and to protect the end I allow the metal
5 core to project a short distance, as shown in Fig. 5.

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

10 The combination, in a whip, of a core or

center composed in part of a spring steel rod, a tapering ratan covering over the rod, a paper wrapping thickest at the butt end portion over the ratan, and a covering outside the paper, substantially as shown. 15

DAVID C. HULL.

Witnesses:

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