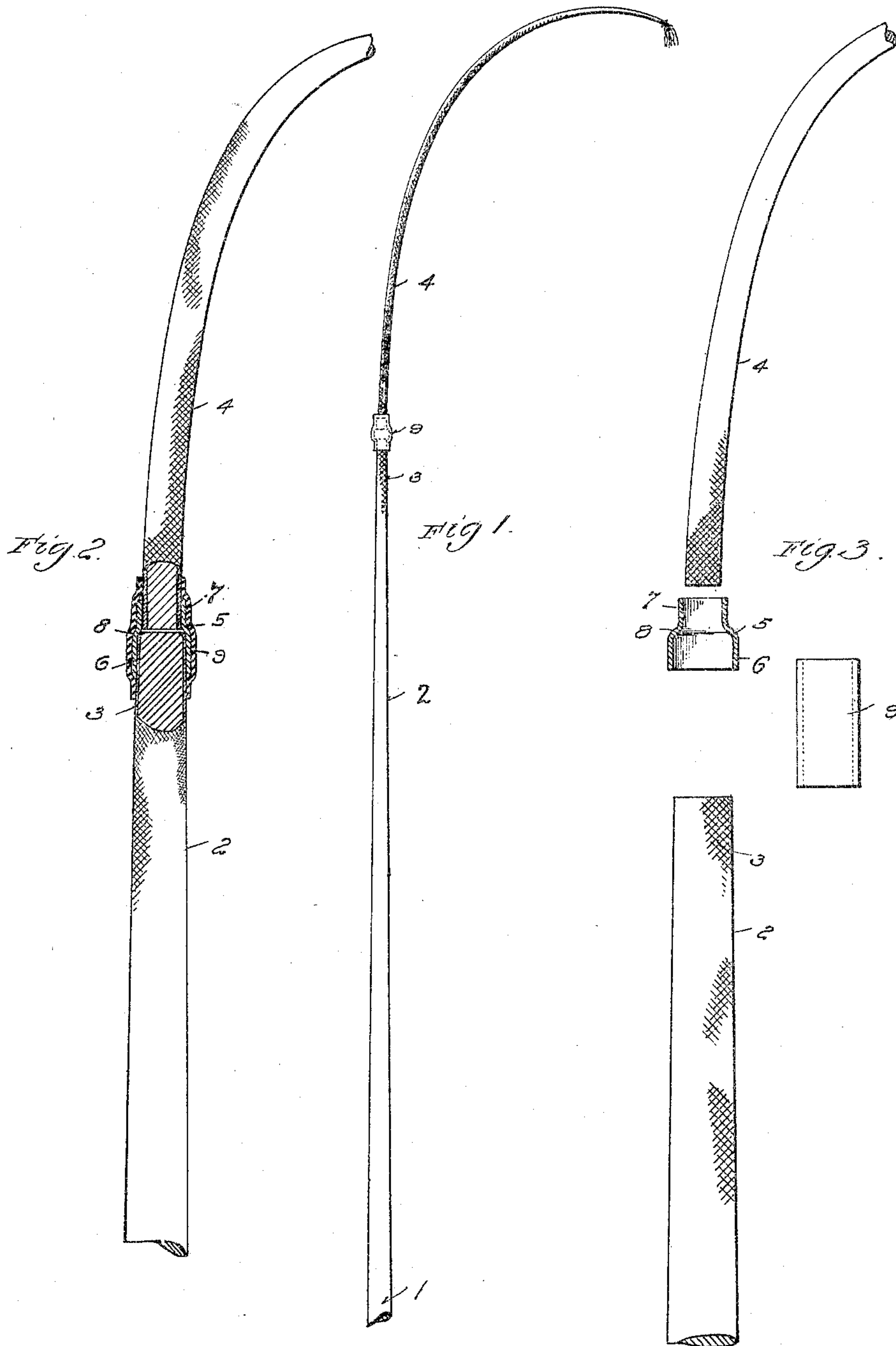


No. 777,336.

PATENTED DEC. 13, 1904.

M. O. FELKER.  
WHIP CRACKER CONNECTION.  
APPLICATION FILED DEC. 13, 1902.

NO MODEL.



WITNESSES:

J. C. Dawley.  
Will Laughlin.

INVENTOR.

Melmonthon O. Felker.  
BY  
H. A. Paulsen.  
ATTORNEY.

# UNITED STATES PATENT OFFICE.

MELANCTHON O. FELKER, OF CHICORA, PENNSYLVANIA.

## WHIP-CRACKER CONNECTION.

SPECIFICATION forming part of Letters Patent No. 777,336, dated December 13, 1904.

Application filed December 13, 1902. Serial No. 135,043. (No model.)

*To all whom it may concern:*

Be it known that I, MELANCTHON O. FELKER, a citizen of the United States, residing at Chicora, in the county of Butler and State of Pennsylvania, have invented certain new and useful Improvements in Whip-Cracker Connections, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to whip-cracker connections, and has for its object to provide a simple, inexpensive, durable, and quick means for connecting with the tip of a whip a cracker or what is technically known as the "whip-snap." This cracker or snap is in the nature of a cord or fabric of similar character and is usually connected with the tip of the whip by means of a loop connection in the form of interconnecting loops on the ends of the tip and cracker. In all the forms of this connection now in common use the forming and connecting of the loops involves considerable expense of time and money and the connection is a relatively frail one, for the reason that the fraying or wear of the fabric material which occurs in use soon causes the connection to weaken and break.

It is the particular object of my present invention to avoid these objections and provide a simple, inexpensive, and durable connection between the cracker or snap and the tip of the whip; and to these ends the invention consists in certain novel features, which I will now proceed to describe and will then particularly point out in the claims.

In the accompanying drawings, Figure 1 is a view of the tip portion of a whip embodying my invention. Fig. 2 is an enlarged view of the same, partly in section, at the joint between the whip-tip and cracker or snap; and Fig. 3 is an illustrative view of the several parts separated, the ferrule being shown in section.

In the said drawings, 1 indicates the whip, terminating in a tip portion 2 and covered, as usual in this class of whips, with a braided covering 3.

4 indicates the cracker or snap, which is, as usual, of a cord-like or similar fabric.

Usually the braided cover 3 is extended be-

yond the end of the tip and braided into a loop and the cracker or snap is formed into a similar loop to be united therewith. In my improved construction I dispense with these loops and employ a ferrule 5, of ductile metal, adapted to be reduced in diameter by swaging. Usually the meeting ends of the tip and cracker or snap are of different diameters, the former being larger than the latter, and my preferred form of ferrule comprises a part 6 of larger diameter and a part 7 of smaller diameter, with an intervening shoulder or connecting part 8. The part 6 is normally sufficiently large to slip readily over the end of the tip 2, and the part 7 is similarly sufficiently large to slip readily over the end of the cracker or snap 4. The ferrule is united with the parts with which it is to connect by reducing its diameter by a swaging process through the medium of suitable tools for that purpose, and, if desired, it may be swaged onto the two parts either successively or simultaneously. By this operation the ferrule is caused to firmly grip and hold the ends of the tip and cracker, and thus firmly unite the two, making a strong and permanent joint which will not become loosened by any fraying of the fabric from wear or use.

Among the advantages attendant upon the use of my construction it may be noted that all fraying of the ends of the cracker or of the fabric covering of the whip is entirely done away with, since these ends are inclosed within and firmly held by the ferrule. Furthermore, the connection can be made very quickly and at a very slight expense. When the shoulder 8 is present, the end of the tip abuts against it, thus forming a seat for the tip and ferrule and strengthening the connection by preventing longitudinal motion of the parts in at least one direction. One of the greatest advantages, however, is that the device may be used for repairing old whips, either to replace a lost or broken cracker or snap or to apply a cracker or snap to a worn whip of which the covering has been worn away at the tip. Heretofore it has been impossible to supply a new cracker to such a whip owing to the lack of any material from which to form a satisfactory loop on the end



of the whip; but by means of my improved connection a cracker can readily be applied to such a whip.

In connection with the construction just described I prefer to employ a protective sleeve 5 9, preferably of rubber or similar material, adapted to be slipped over the joint after it has been formed and serving to cover the metal ferrule and present a soft contact-sur- 10 face at this part of the whip, so that the animal will not be injured thereby. This rubber sleeve will be made of such a size as to hold itself in position by its own elasticity. It will further be noticed that a ferrule of a 15 given size will adapt itself to a large range of sizes both of tip and cracker, since a relatively large ferrule may be readily swaged down to adjust itself to a relatively small size of tip or cracker. In this way a single size 20 of ferrule is all that is needed for almost all of the usual sizes of whips.

I do not wish to be understood as limiting myself to the precise details of construction hereinbefore described, and shown in the accompanying drawings, as it is obvious that 25 these details may be modified without departing from the principle of my invention.

Having thus fully described my invention, what I claim as new, and desire to secure by 30 Letters Patent, is—

1. The combination, with a whip having a plain tip, and a cracker or snap having a similar abutting end, of a ferrule of ductile metal in which the adjacent ends of the whip and 35 cracker are located, said ferrule being swaged upon and firmly gripping and compressing both of said ends, substantially as described.

2. The combination, with a whip having a

plain tip, and a cracker or snap having a similar abutting end, of a ferrule of ductile metal 40 in which the adjacent ends of the whip and cracker are located, the ends of said ferrule being of different diameters and being swaged upon and firmly gripping and compressing the ends of the tip and cracker, respectively, 45 substantially as described.

3. The combination, with a whip having a plain tip, and a cracker or snap having a similar abutting end, of a ferrule of ductile metal in which the adjacent ends of the whip and 50 cracker are located, said ferrule consisting of two parts of different diameters, and an intervening shoulder, the end of the tip bearing against said shoulder, and the parts of the ferrule being swaged upon and firmly gripping 55 and compressing the ends of the tip and cracker, respectively, substantially as described.

4. The combination, with a whip having a plain tip, and a cracker or snap having a similar abutting end, of a ferrule uniting the ends 60 of the tip and cracker, and a protective sleeve of relatively soft material inclosing the ferrule, substantially as described.

5. The combination, with a whip having a plain tip, and a cracker or snap having a similar abutting end, of a ferrule uniting the ends 65 of the tip and cracker, and a sleeve of rubber inclosing the ferrule and held in place by its own elasticity, substantially as described. 70

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

MELANCTHON O. FELKER.

Witnesses:

J. C. GAISFORD,  
A. SLEEGER.