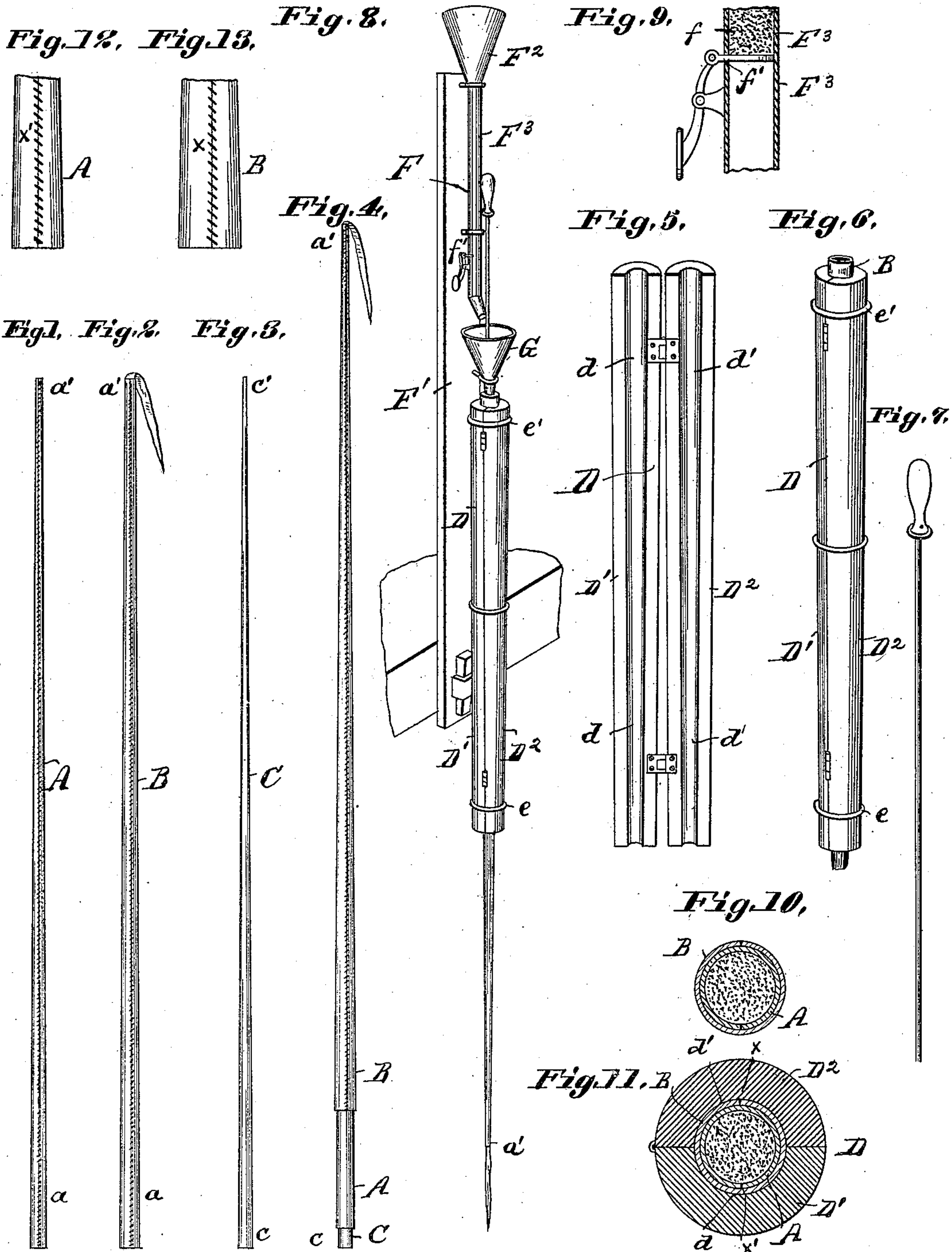


(No Model.)

C. SPITZENBERG.
MODE OF MAKING WHIPS.

No. 306,701.

Patented Oct. 14, 1884.



Attest;
Charles Pickle
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Inventor;
Christoph Spitzenberg
per Hertel & Co

UNITED STATES PATENT OFFICE.

CHRISTOPH SPITZENBERG, OF KIRKWOOD, ASSIGNOR OF ONE-HALF TO
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MODE OF MAKING WHIPS.

SPECIFICATION forming part of Letters Patent No. 306,701, dated October 14, 1884.

Application filed July 14, 1884. (No model.)

To all whom it may concern:

Be it known that I, CHRISTOPH SPITZENBERG, a citizen of the United States, residing at Kirkwood, in the county of St. Louis and State of Missouri, have invented a new and useful Improved Mode of Manufacturing Horse-Whips, of which the following is a specification.

My invention relates to improvements in the manufacture of that class of horse-whips known to the trade as the "black" or "oil-snake" whip; and the objects of my improvements are to provide means to afford quicker, better, and more reliable facilities to manufacture the improved whip of the said class according to an invention described in an application for patent for improvements in whips, filed by me of even date with this application. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a side view of the inner whip-cover; Fig. 2, of the outer cover. Fig. 3 shows the mandrel. Fig. 4 shows both covers slipped over each other and on the mandrel to give shape to said covers and preparatory to placing same in the "former." Fig. 5 shows the former in open condition. Fig. 6 shows the former in closed condition and as retaining in same the two whip-covers preparatory to placing the parts under the sand-pump. Fig. 7 shows the rod used for ramming the sand. Fig. 8 shows the bench provided with the sand-pump, and under same the former with its two whip-covers in the act of being filled with sand. Fig. 9 is an enlarged sectional view of the valve in the sand-pipe to regulate the passage of the sand. Fig. 10 is a cross-section of the two whip-covers filled with sand, showing that the seams of said covers are arranged opposite to each other. Fig. 11 is a cross-section of the two covers filled with sand while yet held in the former. Figs. 12 and 13, respective detail views of a portion of the two whip-covers.

Similar letters refer to similar parts throughout the several views.

I first provide an inner and outer whip-cover, the inner cover, A, being shown in Fig.

1, the outer cover, B, shown in Fig. 2. Both these covers generally consist of leather made tubular, and tapering from the handle portion *a* to the extremity of the whip at *a'*. (See Figs. 1, 2.) Further, the outer cover is fitted to be slipped over the inner cover. (See Fig. 4.)

C is the metal mandrel, having the cylindrical tapering form from the handle *c* to extremity *c'*, the same as the two whip-covers. (See Fig. 3.) It is over the mandrel that both covers A B are temporarily slipped or placed (see Fig. 4) for purposes of causing the covers to retain the tubular shape and preparatory to receiving the filling of sand, as will hereinafter appear.

D represents the former, used to hold the two covers under the sand-pump. This former consists of the counterpart halves *D'* *D''*, hinged together, and having the inside grooves at *d* *d'*, which are shaped to receive and seat the corresponding portions of the two covers, as shown in Figs. 5, 6, 8, 11. Both covers still on the mandrel, I place in one of the grooves of the open former. Next I securely close the former by slipping the rings *e* *e'* over the same. This done, I withdraw the mandrel, which leaves the covers sustained in the former or wooden mold D in the condition indicated in Figs. 6 and 8. The wooden former D, so containing the two covers, as just stated, is next held by the operator under or in line with the sand-pump for purposes of filling the body of the whip-covers with sand or the like granulated material.

The sand-pump F is constructed as follows: It is mounted on an upright, *F'*. At the top is the funnel or reservoir *F''*, to contain the sand. *F'''* is the sand-pipe, down which the sand *f* gravitates, its passage being controlled by the thumb-valve *f'*. (Shown in Figs. 8 and 9.) The sand contained in the upper funnel, as it is permitted to pass down the pipe *F'''*, discharges into the second funnel, G, that has been inserted in the open end of the whip-covers when same are held in line of the pump, as indicated in Fig. 8. The whip-covers being held inverted under the pump, the sand first falls to the lowest and thinnest portion of the whip-body and gradually fills same to

the extreme top thereof. As the sand gradually fills the whip, the operator at same time can work the valve to diminish or increase the fall of the sand, and also he can use the rammer to make the sand more and more compact. When the whip-body has been so filled with sand, the ends (or the handle and point portions) of the whip-body are closed in any well-known way, and the whip is completed. I arrange both covers A B to have their respective seams $x x'$ opposite or out of line. (See Figs. 10, 11.) The sand is thus doubly protected, since if the seam of the one cover should become fractured the other cover can still hide the sand.
What I claim is—

The method of making whips, consisting in slipping an outer cover and inner cover over a mandrel, next inclosing said parts in a mold or former, next withdrawing said mandrel and placing the mold with its tubular whip-covers in line with a sand-pump and filling completely the inside or body portion of said whip-covers with sand, substantially as herein set forth.

In testimony of said invention I have hereunto set my hand.

CHRISTOPH SPITZENBERG.

Witnesses:

WILLIAM W. HERTHEL,
JOHN W. HERTHEL.