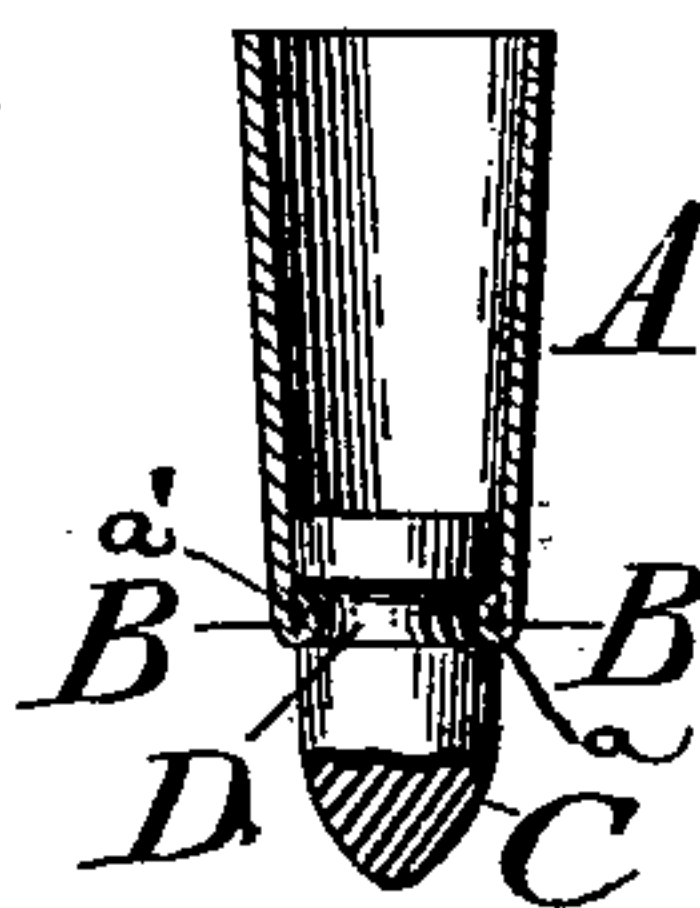
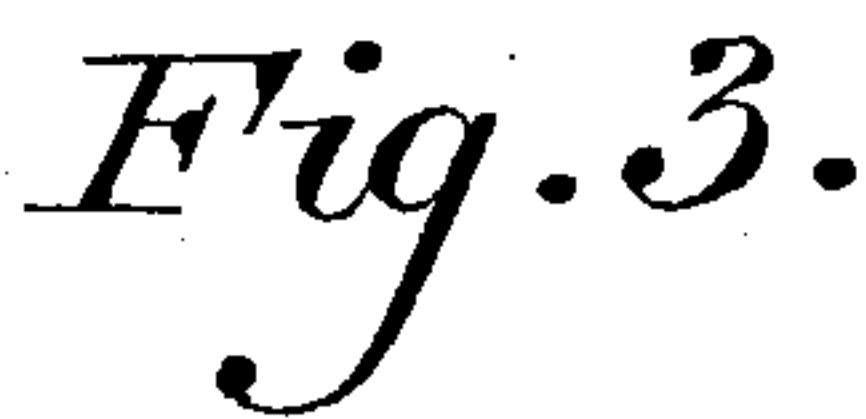
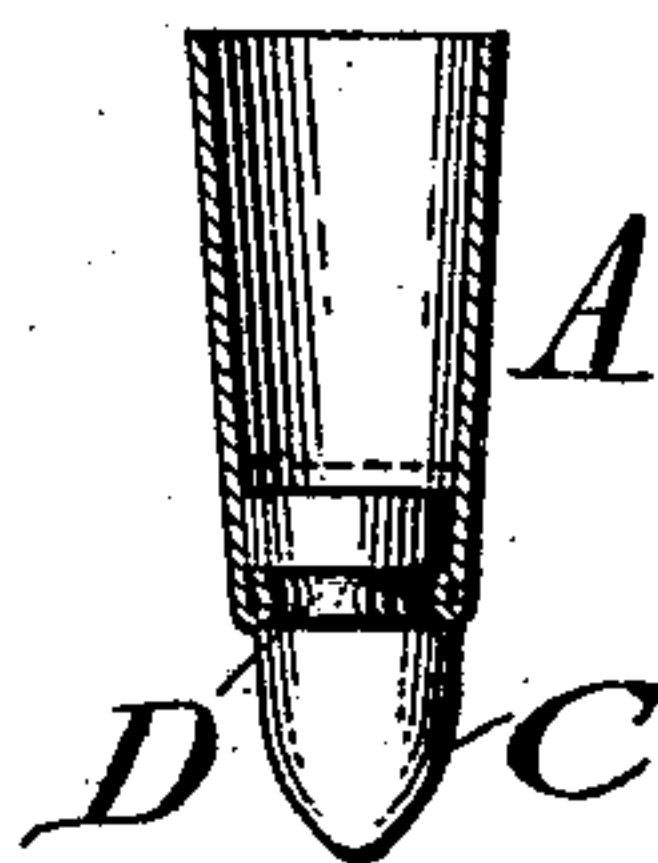
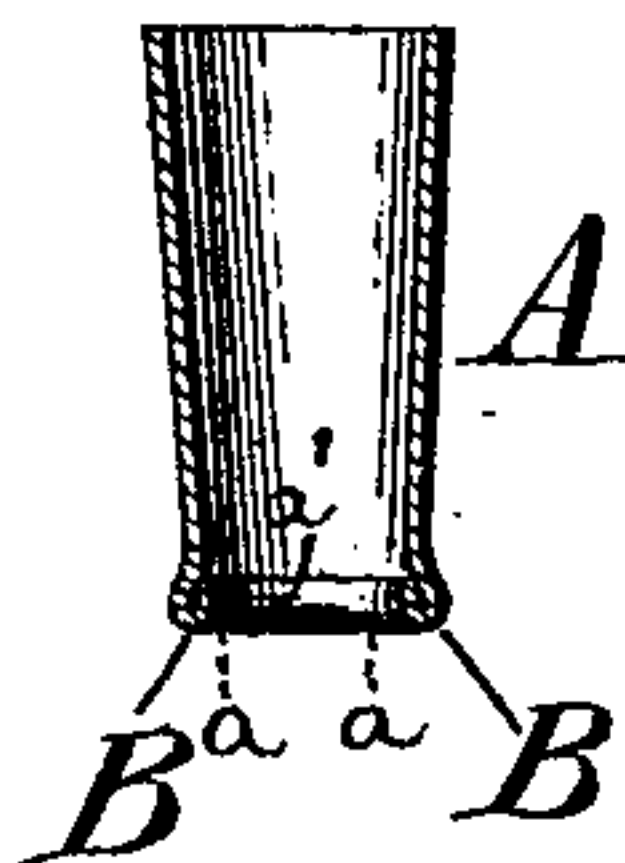
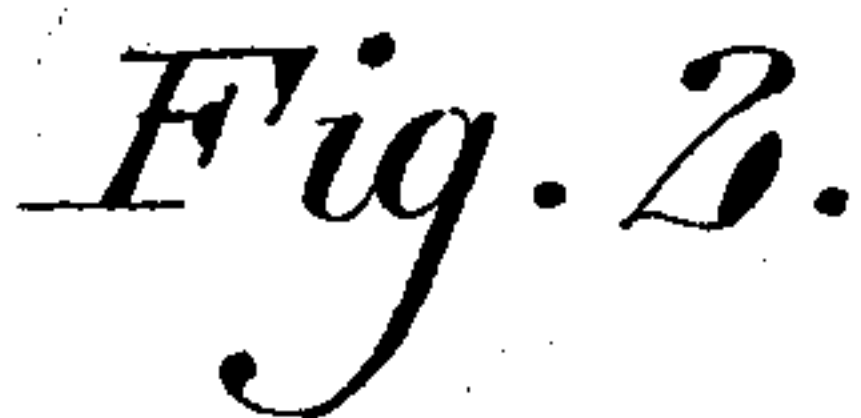
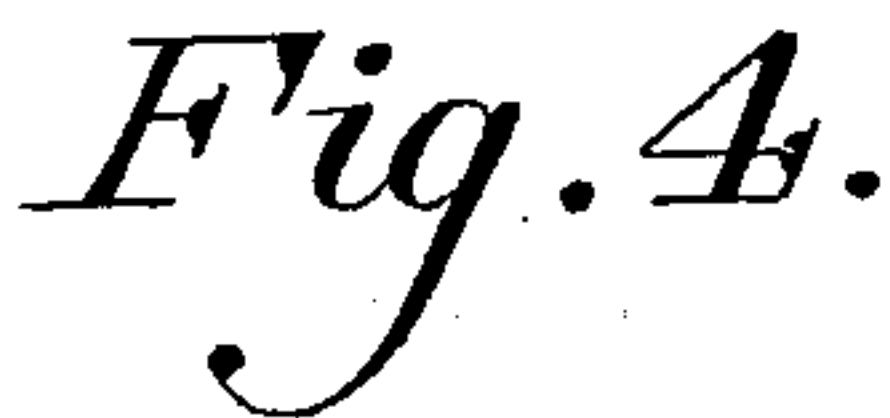
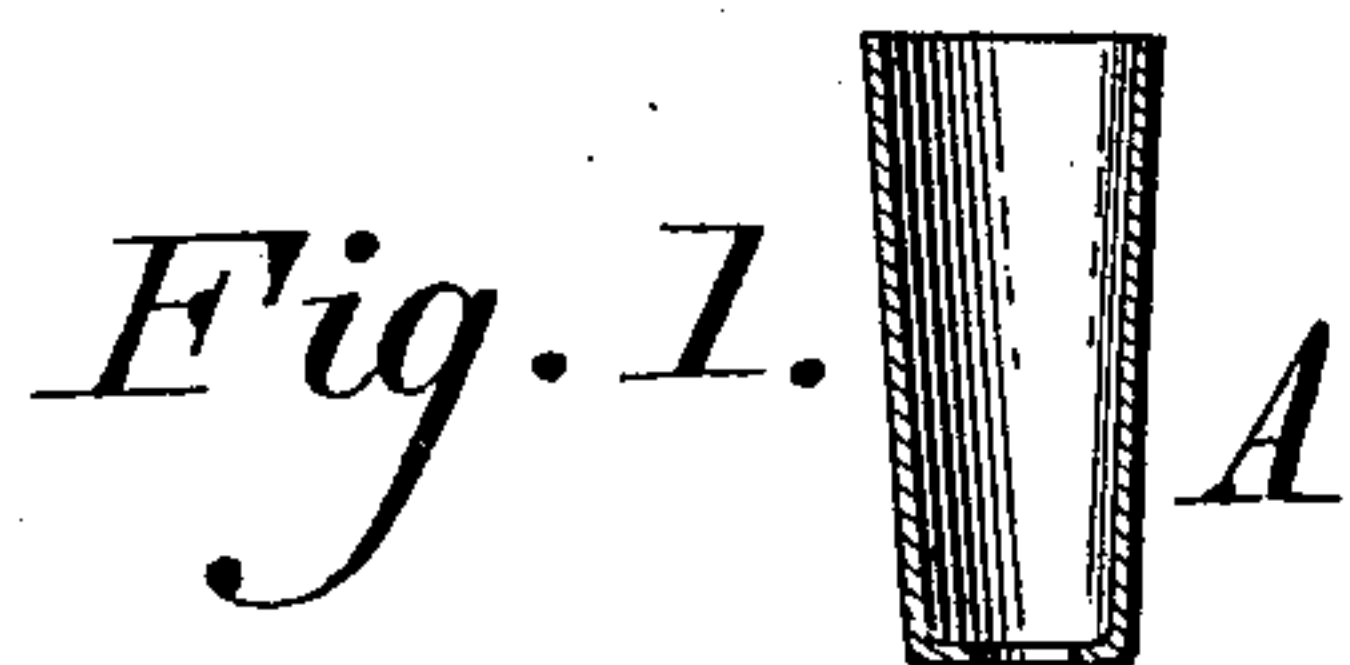


(No Model.)

W. H. GASKILL.  
FERRULE.

No. 521,342.

Patented June 12, 1894.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

WILLIAM H. GASKILL, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO  
SAMUEL W. EVANS, JR., OF SAME PLACE.

## FERRULE.

SPECIFICATION forming part of Letters Patent No. 521,342, dated June 12, 1894.

Application filed March 28, 1893. Serial No. 467,936. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM H. GASKILL, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Ferrules, which improvement is fully set forth in the following specification and accompanying drawings.

My invention consists of a ferrule having on the interior of the lower end thereof, a bead which engages with a circumferential groove on the point, whereby the latter is connected with the ferrule in a simple, strong and durable manner, said bead being of novel construction and adapted to form a shoulder and preserve the tapering form of the ferrule which receives the wide end of the point, all as will be hereinafter more fully set forth.

Figure 1 represents a longitudinal section of a ferrule in primary condition. Fig. 2 represents a longitudinal section of a ferrule in condition to have a point secured thereto. Fig. 3 represents a longitudinal section of the ferrule and partial section and side elevation of a solid point connected with said ferrule. Fig. 4 represents a section of a hollow point. Fig. 5 represents a hollow point connected with the ferrule.

Similar letters of reference indicate corresponding parts in the several figures.

Referring to the drawings: A designates a ferrule having its lower end inturned, forming the bead B.

C designates the point which is formed with a groove D on the circumference thereof, said point being inserted in the ferrule, so that the bead B registers with said groove D, after which the metal of the ferrule around the lower edge thereof is pressed or forced inwardly, whereby the bead enters the groove D and thus interlocks the ferrule with the point, and vice versa, and thus said parts are

firmly connected in a simple, practical and efficient manner, it being noticed that the bead forms a folded edge *a*, part of which rests on the lower wall of the groove D, and part projects outside of said wall, forming the shoulder, so desirable in ferrules, while the turned-up part *a* of said bead fills the main portion of said groove, and presents two lengths of metal at the lower end of the body of the ferrule, thus vastly stiffening said end, strengthening the bottom edge of said body, preventing outward bulging of said edge, and presenting a broad and uncut edge, which rests upon the bottom shoulder or wall of the groove D, so that rapid wearing out of the body, and loosening of the same are prevented, besides presenting the shoulder at the bottom of the body, which is a desirable feature in ferrules, and the right-lined taper of the body is preserved throughout.

In Fig. 3 the point is solid, and in Figs. 4 and 5 the point is hollow, but the locking or connecting action of the point and ferrule is the same in both cases.

When a hollow point is employed, the top of the same may be closed by a cap if so desired, as shown by the dotted lines Fig. 5.

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

A point formed with a circumferential groove, and a body receiving the wide end of said point having a folded edge which rests partly on the bottom wall of said groove, and projects partly outside of the same as a shoulder, the part upturned from said edge occupying said groove, all being combined substantially as described.

WILLIAM H. GASKILL.

Witnesses:

WM. H. SHALLCROSS,

GUERNSEY A. HALLOWELL.