

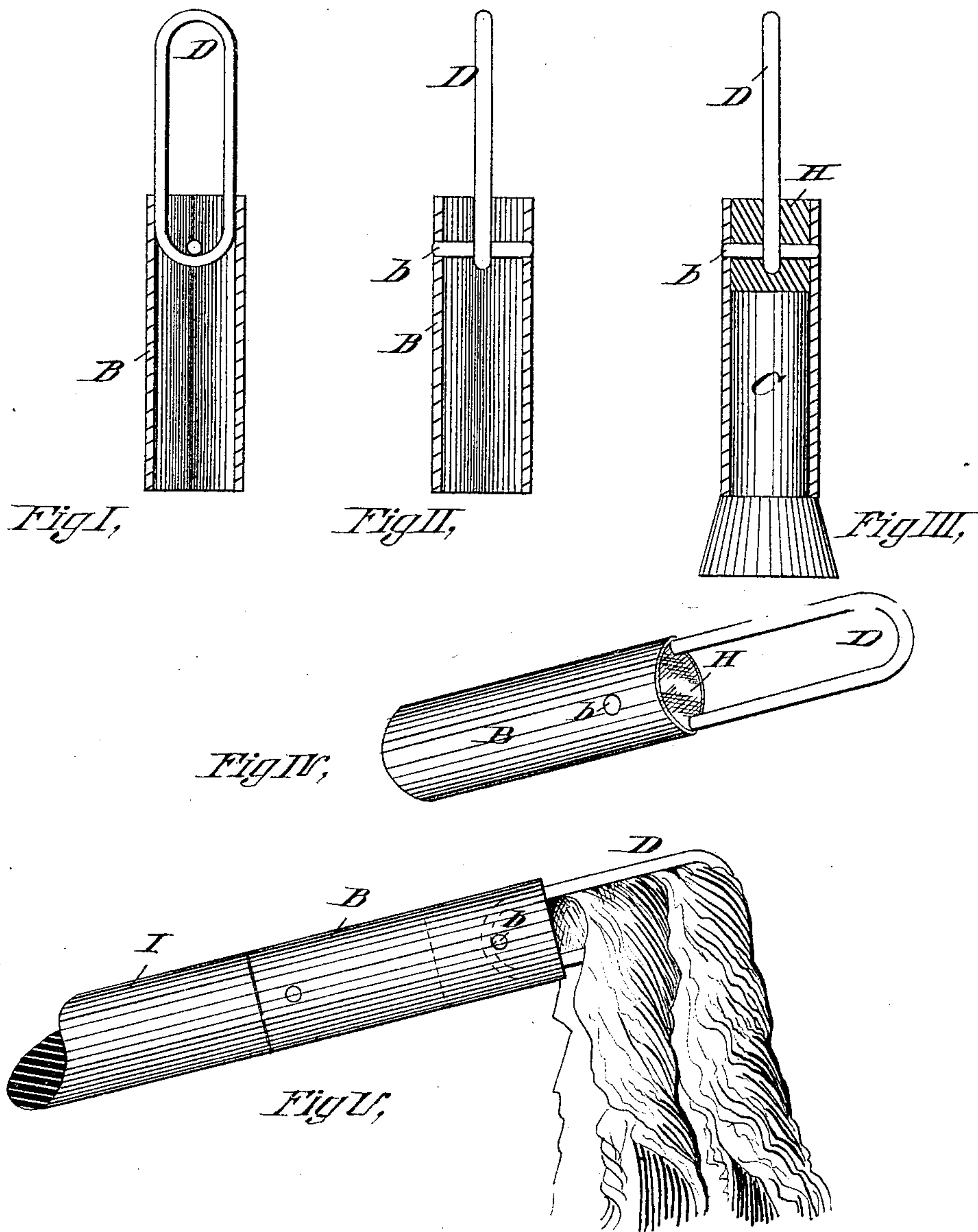
(No Model.)

J. D. SMITH.

GUN WIPER.

No. 355,570.

Patented Jan. 4, 1887.



Witnessed,
Per my hand
Jason Perkins

Inventor,
James D Smith
By R F Hyde
att'y.

UNITED STATES PATENT OFFICE.

JAMES D. SMITH, OF SPRINGFIELD, MASSACHUSETTS.

GUN-WIPER.

SPECIFICATION forming part of Letters Patent No. 355,570, dated January 4, 1887.

Application filed October 20, 1886. Serial No. 216,708. (No model.)

To all whom it may concern:

Be it known that I, JAMES D. SMITH, a citizen of the United States, residing at Springfield, county of Hampden, and State of Massachusetts, have invented a new and useful Improvement in Gun-Wipers, of which the following is a specification.

My invention relates to an improved mop-holder and ferrule for the rod of a gun-wiper; and it consists in the combination and construction, as hereinafter described, and more particularly pointed out in the claim.

My invention is fully illustrated in the accompanying drawings, in which—

Figures I, II, and III are partial longitudinal sections of my device in different stages of construction. Fig. IV is a perspective view of the complete device, and Fig. V shows the device combined with a rod and mop.

A tube, B, adapted in size to enter the gun-barrel, has a link, D, of the diameter of the bore of said tube, passed into one end of the tube until it has a good bearing upon the inner sides of said tube B, as seen in Fig. I. A pin, b, is inserted transversely in tube B, to extend from side to side of it and within the link D, as seen in Figs. I, II, and III. The link is pulled up to bear against the pin. A plug, C, filling the tube B, is inserted therein to a point a little distance below the link end within the tube, as seen in Fig. III, and molten metal is run into the tube above the end of plug C to fill said space flush to the top of the tube.

The link D, I form of drawn metal, such as stout wire having its grain parallel with its length. Any soft metal may be used for the filling H. (Shown in Fig. III.)

The plug C, when withdrawn, leaves a ferrule, which may be provided with a screw-thread to better enable it to be combined with a rod, I; or the ferrule may be pinned to the rod, as shown in Fig. V, or only fitted to the rod to be held by friction, its large inner diameter enabling it to be combined in any of these three ways firmly with the rod. The metal filling H, uniting with the tube B and

embedding the pin b and recessed end of link D, makes the link, in effect, integral with tube B, and the pin b effectually prevents the link from pulling out, and under a torsion strain from rotating with the filling in the end of the tube.

The end of rod I within the ferrule, by coming against the filling H, prevents the link from being driven within the tube; but the solid head formed by the filling as a base to the staple made by the projecting part of link D relieves the link of all strain in pushing the wiper through a barrel, and cannot wedge the waste or rag used as a wiping material within the barrel so as to jam it fast, as frequently occurs in a wiper having wedge-shaped sides to the bottom of the slot therein, as the wide shoulder in this wiper at right angles to the axis of the barrel enables my mop to be pushed entirely through the barrel, which can be entered at one end thereof.

The link, being formed of metal round in cross-section, cannot cut the rag or waste in reciprocating it within the barrel, and, being formed of drawn metal, possesses a strength not held by a loop filed from a solid mass of metal.

By this means a simple and exceedingly effective gun-wiper is produced, and one having capacity in its eye or loop for much more wiping substance than the wipers in general use.

Now, having described my invention, what I claim is—

The within-described improved gun-wiper, consisting of a tube, B, drawn-metal link D, pin b, and metal filling H, run in when molten to combine with the tube, link, and pin, arranged as shown, and to leave a staple with a solid shoulder for its base, and a ferrule in the tube adapted to be combined with a rod or handle, substantially as shown and described.

JAMES D. SMITH.

Witnesses:

R. F. HYDE,
BENJ. TYLER.