

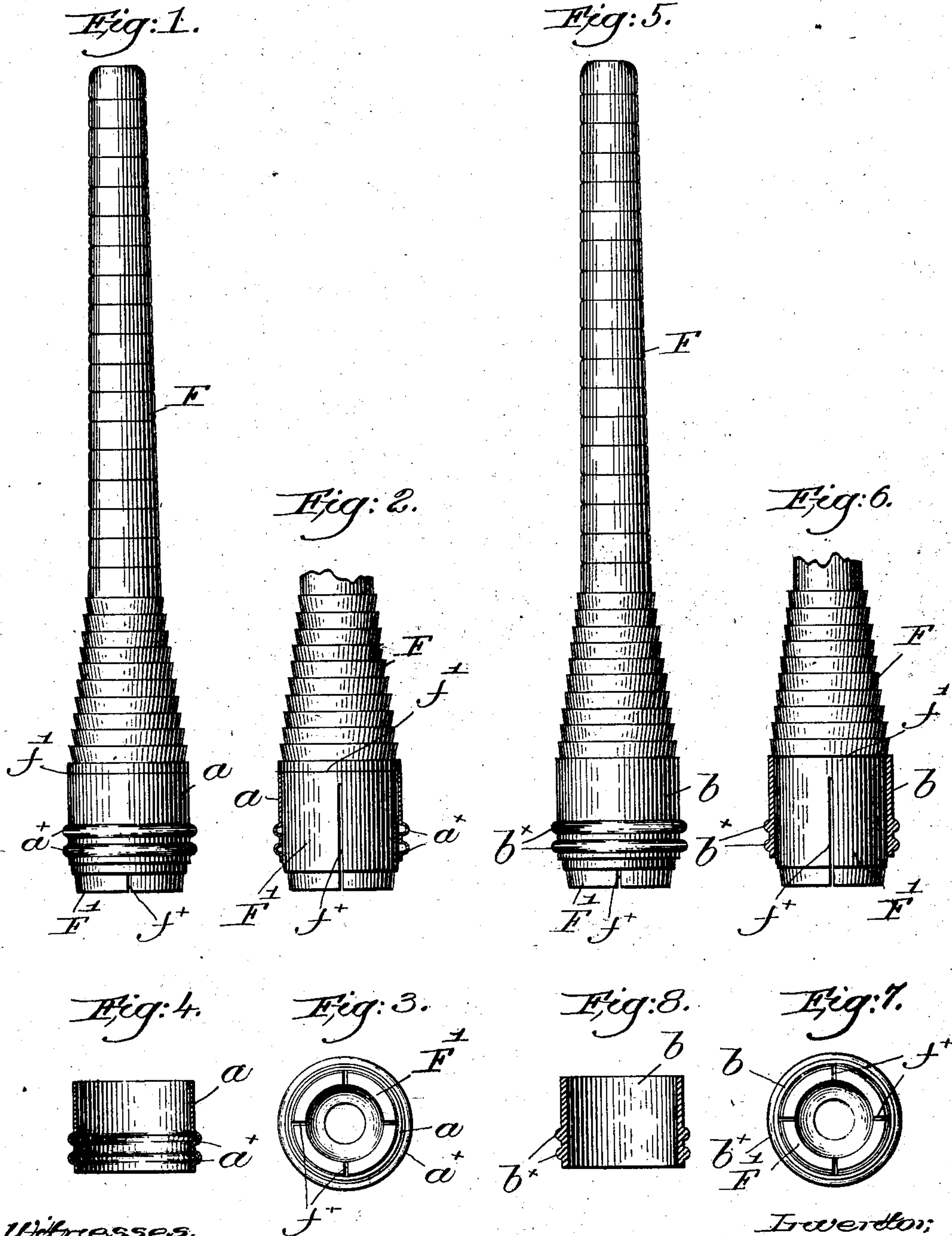
No. 721,346.

PATENTED FEB. 24, 1903.

W. WELCH.
FILLING CARRIER FOR LOOM SHUTTLES.

APPLICATION FILED AUG. 6, 1902.

NO MODEL.



Witnesses,
Edward H. Allen.
Fred S. Grumbaf.

Inventor:
William Welch,
by Leroy Gregory.
Atty.

UNITED STATES PATENT OFFICE.

WILLIAM WELCH, OF HOPEDALE, MASSACHUSETTS, ASSIGNOR TO DRAPER COMPANY, OF HOPEDALE, MASSACHUSETTS, A CORPORATION OF MAINE.

FILLING-CARRIER FOR LOOM-SHUTTLES.

SPECIFICATION forming part of Letters Patent No. 721,346, dated February 24, 1903.

Application filed August 6, 1902. Serial No. 118,584. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM WELCH, a citizen of the United States, residing at Hopedale, county of Worcester, State of Massachusetts, have invented an Improvement in Filling-Carriers for Loom-Shuttles, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention relates to filling-carriers for loom-shuttles, and more particularly to the type of filling-carrier which is held in place in the shuttle by separable spring-jaws in engagement with annular ribs or projections on the head of the filling-carrier. These ribs or projections have heretofore been constructed in various ways, and in one well-known structure a plurality of split metallic rings are mounted upon the head of the filling-carrier, being seated in shallow grooves therein.

My present invention has for its object the production of novel means for mounting and securing the annular projections or ribs in position upon the head of the filling carrier or bobbin.

Figure 1 is a side elevation of a filling-carrier with one embodiment of my invention applied thereto. Fig. 2 is a detail of the head of the filling-carrier, the ribbed sleeve thereon being shown in section. Fig. 3 is an end elevation of the structure shown in Fig. 1, and Fig. 4 is a diametrical vertical section of the ribbed sleeve detached. Figs. 5 and 6 are views similar to Figs. 1 and 2, respectively, but showing a modification of the ribbed sleeve. Fig. 7 is an end view of the filling-carrier shown in Fig. 5; and Fig. 8 is a diametrical vertical section of the sleeve shown in Figs. 5 to 7, inclusive.

The filling-carrier or bobbin F, of well-known construction and usually made of wood, is provided with a tubular or hollow head F', substantially cylindrical externally and having an annular shoulder f' near its upper end, Figs. 1 and 2. I prefer to increase the radial elasticity or expansibility of the head by providing the same with one or more longitudinal slots f^x. Upon the head I force a continuous metallic sleeve, provided with external annular ribs or projections, and in Figs. 1 to 4 the sleeve a is made of suitable sheet metal and spun or stamped to present external annular ribs or projections a^x, two

of such ribs being herein shown, though a greater number may be provided, if desired. The sleeve is of slightly less internal diameter than the head F' of the filling-carrier and is forced thereupon against the shoulder f', compressing the head sufficiently to be tightly and permanently held thereupon.

In the modification, Figs. 5 to 8, inclusive, the metal sleeve b is shown as of greater thickness, and it is turned down in a lathe or other suitable machine to present external annular ribs or projections b^x, the sleeve being forced upon the filling-carrier as before.

In both cases the ribs are shown as externally convex transversely of their length, and they are engaged by the holding-jaws of the shuttle in well-known manner.

The structure herein shown is cheap, simple, and efficient, the sleeve protecting the head of the filling-carrier and presenting a firm and sufficiently-durable engaging portion for the holding-jaws in the shuttle.

The annular projections are securely held in place, and they cannot break or wear loose.

I claim—

1. A filling-carrier for loom-shuttles, having a radially expansible and externally cylindrical head, a metallic sleeve surrounding and compressing the head and retained thereupon wholly by the expansibility of the head, and external annular ribs on the sleeve, for the purpose specified.

2. A filling-carrier for loom-shuttles, having a longitudinally-slotted and externally-smooth head, a continuous metallic sleeve forced upon the head and retained thereon by expansibility of the latter, and external annular ribs on the sleeve, for the purpose specified.

3. A filling-carrier for loom-shuttles having a non-metallic head with a smooth, cylindrical, external surface, a continuous and internally-smooth metallic sleeve forced upon the external surface of the head, and external annular ribs on and integral with the sleeve, for the purpose specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM WELCH.

Witnesses:

GEORGE OTIS DRAPER,
ERNEST WARREN WOOD.