

No. 765,088.

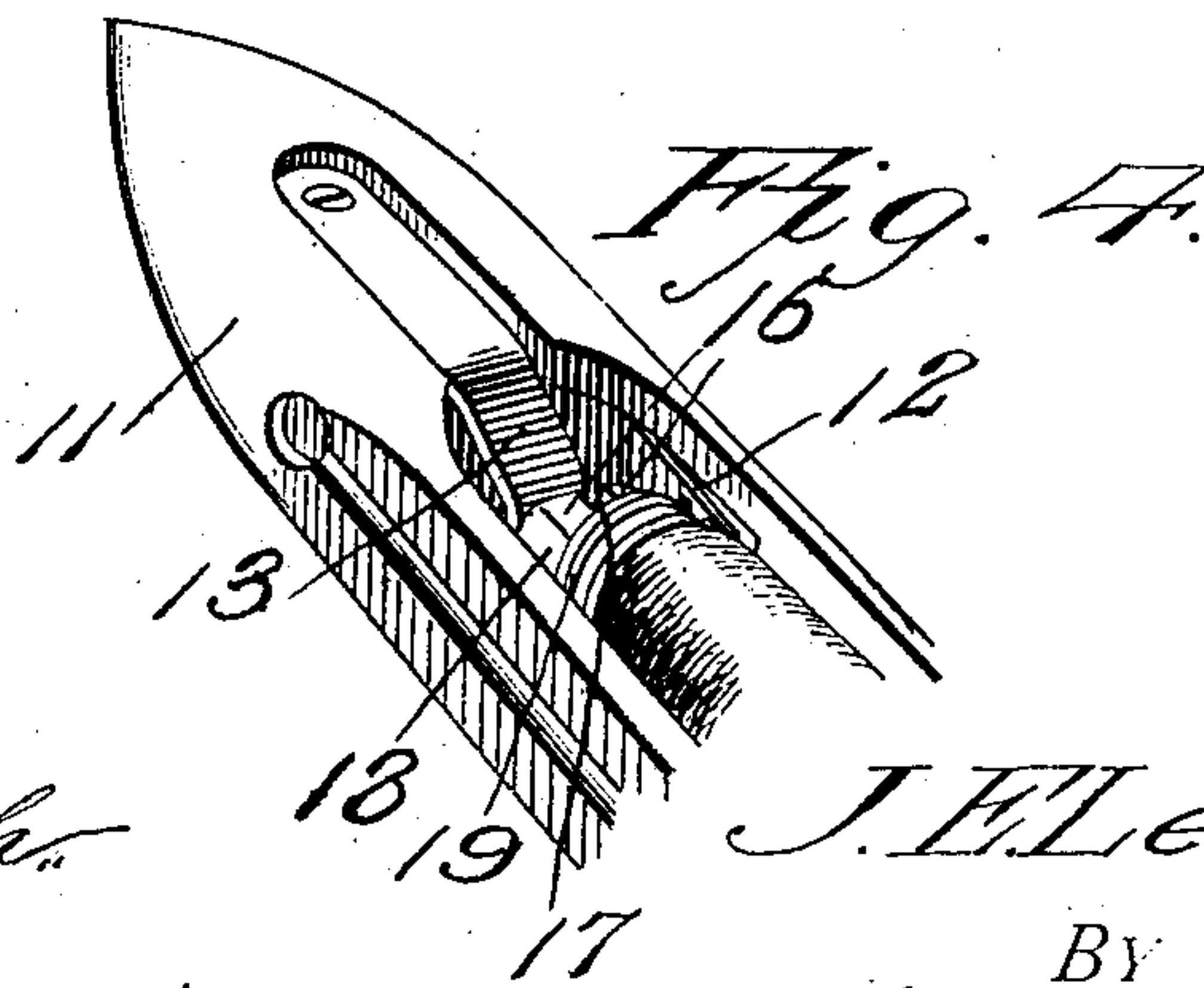
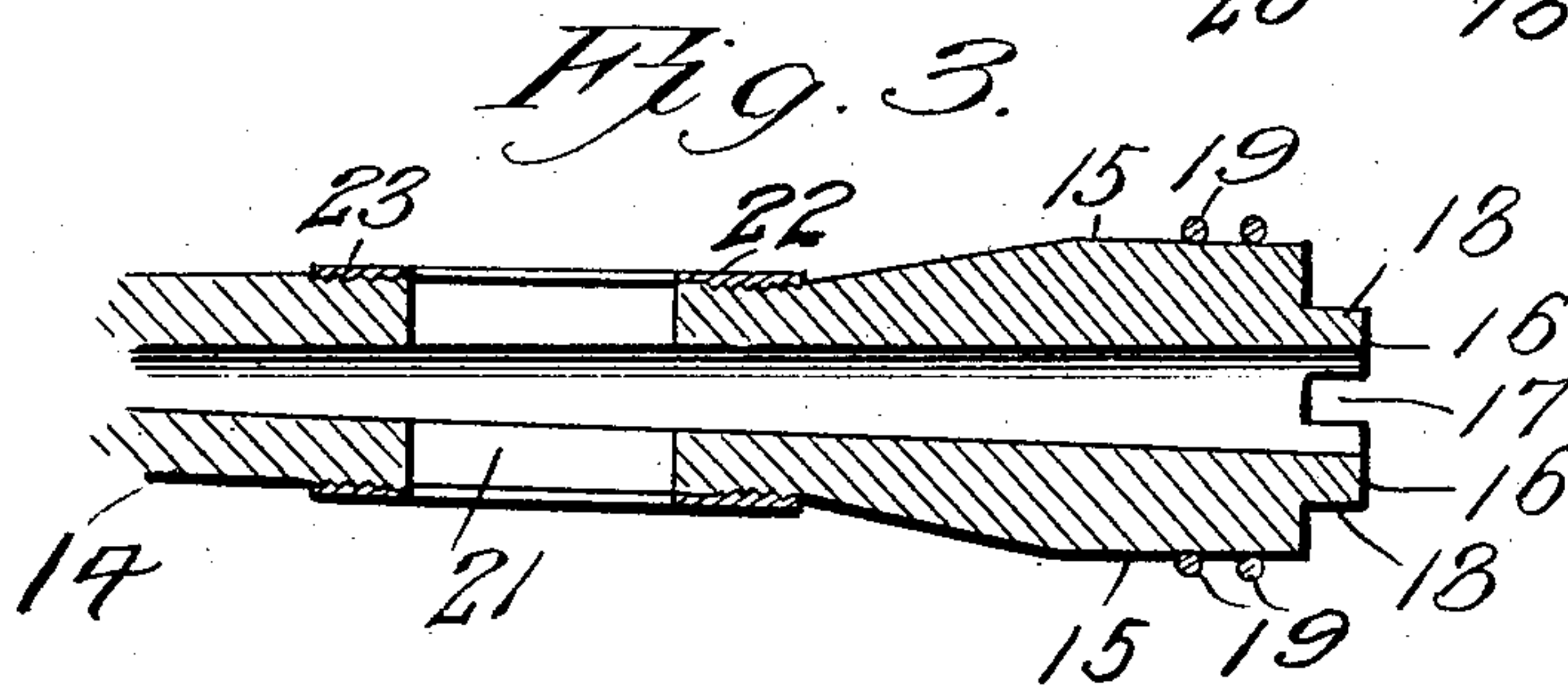
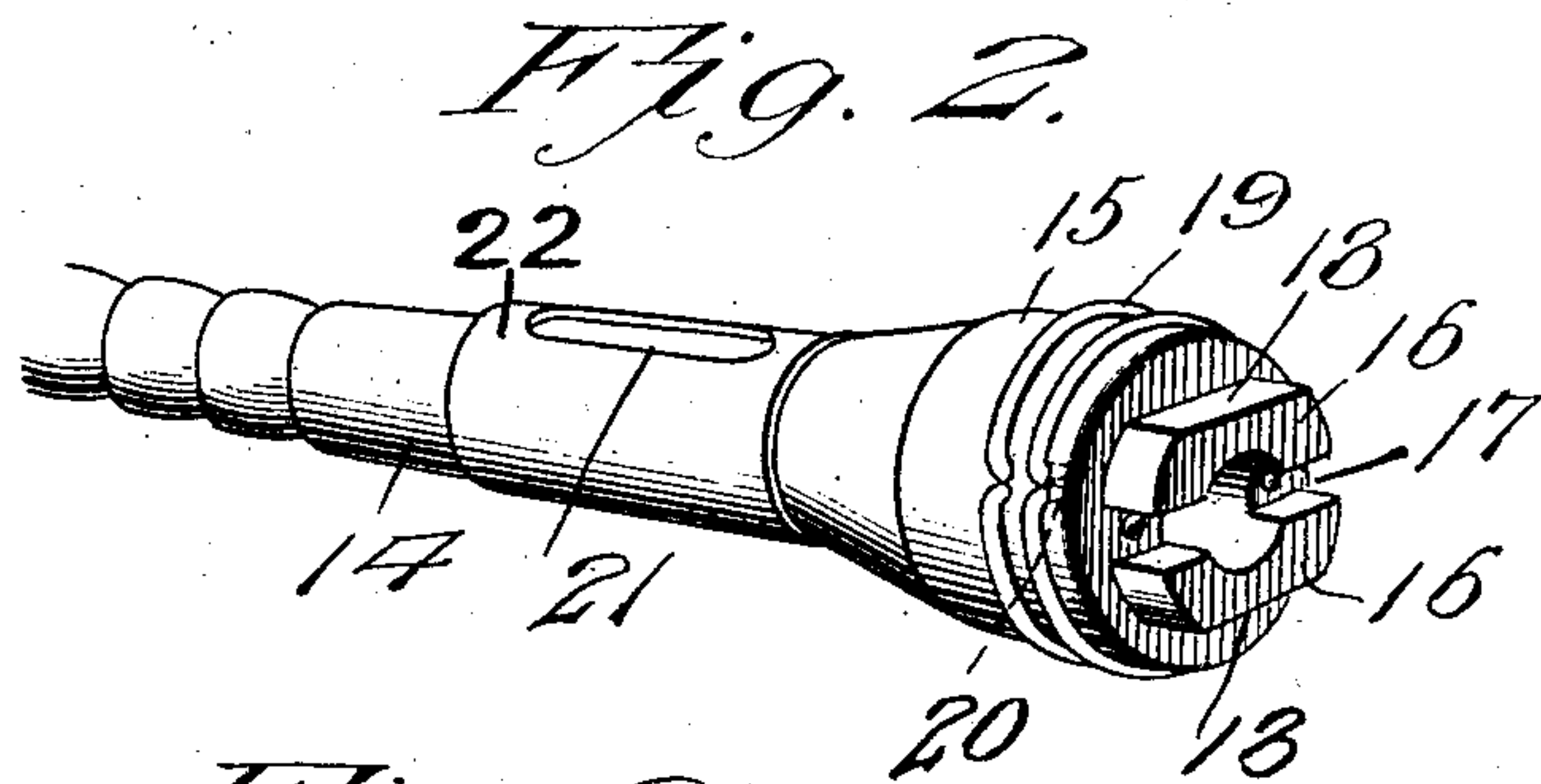
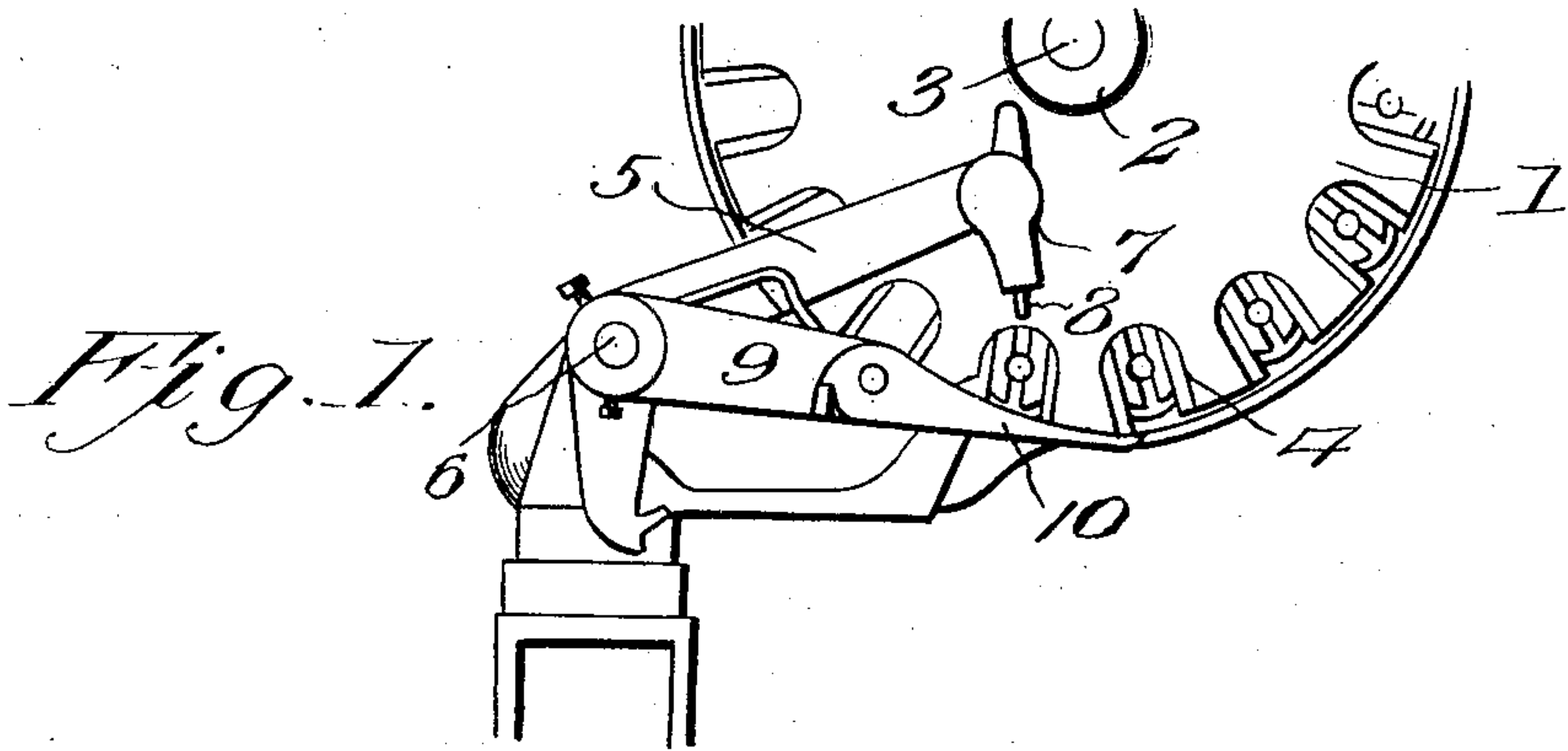
PATENTED JULY 12, 1904.

J. E. LEMYRE.

BOBBIN OR FILLING CARRIER AND FEEDER FOR LOOMS.

APPLICATION FILED JAN. 6, 1904.

NO MODEL.



WITNESSES:

Wm. Koerth
Chas. S. Hoyer.

INVENTOR

J. E. Lemyre,

BY

Victor J. Evans
Attorney

UNITED STATES PATENT OFFICE.

JOSEPH E. LEMYRE, OF MANCHESTER, NEW HAMPSHIRE, ASSIGNOR OF ONE-HALF TO JOHN H. WHITTEN, OF MANCHESTER, NEW HAMPSHIRE.

BOBBIN OR FILLING CARRIER AND FEEDER FOR LOOMS.

SPECIFICATION forming part of Letters Patent No. 765,088, dated July 12, 1904.

Application filed January 6, 1904. Serial No. 187,944. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH E. LEMYRE, a citizen of the United States, residing at Manchester, in the county of Hillsboro and State of New Hampshire, have invented new and useful Improvements in Bobbins or Filling Carriers and Feeders for Looms, of which the following is a specification.

This invention relates to an improvement in the construction of bobbins or filling-carriers particularly adapted to be held in a revolving filling-carrier feeder for a loom, and especially refers to the construction of the bobbin or carrier.

The primary object of the present invention is to overcome well-known objections now existing in this class of bobbins or filling-carriers and prevent them from rotating in the feeder or becoming misplaced and also to reliably retain them in such position in the feeder as to be successively engaged by the ejecting mechanism and properly disposed in the shuttle.

The invention consists in the construction and arrangement of the parts which will be more fully hereinafter set forth.

In the drawings, Figure 1 shows an end elevation of a portion of a bobbin or filling-carrier feeder, together with a pusher or ejecting mechanism embodying practically the ordinary construction with slight changes, and illustrating a number of the improved bobbins or filling-carriers disposed in the feeder. Fig. 2 is a detail perspective view of the head extremity of the bobbin or filling-carrier. Fig. 3 is a longitudinal vertical section of the bobbin or filling-carrier shown by Fig. 2. Fig. 4 is a detail perspective view of a part of a shuttle with a portion of the bobbin or filling-carrier therein.

Similar numerals of reference are employed to indicate corresponding parts in the several views.

The bobbin or filling-feeder is composed of a notched head or disk 1, as in ordinary devices of this class, at one end of a sleeve 2, mounted on a stud 3, and the notches or peripheral slots 4 are radially disposed and have opposite straight parallel sides. The notches

or slots 4 open outwardly through the periphery of the head or disk 1, and coöperating with the latter is a pusher 5, mounted on a stud 6 and having at its free end an ejecting or expelling head 7, provided with a depending pin 8. On the hub of the pusher 5 is secured an arm 9, which carries a movable member 10 at its free end, having an upper curved edge against which the bobbins or filling-carriers are pressed, as in the usual arrangement of this class and readily understood in the art.

The shuttle 11 (shown to illustrate the application of the invention) has the usual jaws 12, one of which is shown by Fig. 4, and a bridge 13. It will be understood that shuttles applied with other analogous attachments may be equally well used.

The bobbin or filling-carrier 14 has the usual head 15, which in accordance with the features of the invention is preserved in true cylindrical contour without interruption by the formation of straight surfaces thereon, and projecting from the end of the head are holding-bosses or enlargements 16, separated by an intervening slot 17, the outer side edges 18 of said bosses being straight and parallel to each other. The straight side edges 18 form secant surfaces for guiding and holding the bobbin or filling-carrier when inserted in the head or disk 1 without requiring the use of radially-projecting pins in said disk and permitting the bobbin or carrier to be inserted in its notch or slot without requiring a precise arrangement, or, in other words, the bobbin or carrier can be turned in opposite directions for placement in the head or disk 1 as long as the secant surfaces provided by the outer straight side edges of the bosses or enlargements 16 are in line with the opposite walls of the notch or slot in the disk in which it is desired to insert the head of the bobbin or carrier. The slot 17, extending between the bosses or enlargements 16, provides means for the reception of the pin 8 on the head of the pusher, and by having said slot extend fully through the bosses or enlargements either end thereof may be engaged by the pin. The pin 8 holds the bobbin against turning or revolving after the head 15 is brought to bear on the movable

member 10 to maintain the bobbin-head in a proper position for introduction in the shuttle; but for the pin 8 the bobbin would turn or revolve on the member 10 after the head 15
 5 had been cleared from the slot 4. Surrounding the head 15 are metallic rings 19, which are for a purpose well understood in the art, and the present improvement embodies a simple securing method for said rings, which
 10 consists in bending the terminals 20 thereof at an angle and driving them into the head, as clearly shown by Fig. 2. Before securing the rings as set forth they are tightly drawn around the head 15 until the bent terminals
 15 are in close relation, and said terminals are then secured as set forth.

Adjacent to the head the body of the bobbin or filling-carrier is formed with oppositely-disposed slots 21 for coöperation with
 20 a detector or feeler, and in the present instance the bobbin-body has applied over said slots a metal sleeve 22 to serve as a strengthening means, the inner surfaces of the opposite ex-
 25 tremities of the sleeve being threaded, as at 23, to secure and hold said sleeve against movement. The sleeve is of thin metal and does not form material projection on the bobbin or carrier, and therefore will not interfere with winding the filling thereon.

30 The sleeve 22 is slipped longitudinally over the smaller end of the bobbin and moved toward the head 15, the end of the sleeve nearest the head being first caused to engage and pass screw-threads surrounding the bobbin
 35 adjacent to the terminals of the slots 21, which are farthest from the head. After the advance end of the sleeve has passed inward beyond the said screw-threads the rear terminal of the sleeve is brought into engagement with
 40 the same threads and simultaneously the terminal of the sleeve nearest the head 15 engages like screw-threads near the outer terminals of the slots 21, and by continuing to rotate the said sleeve both sets of screw-
 45 threads are engaged fully by said sleeve to secure the latter in place. When the sleeve is applied, the slots therein at diametrically opposite points are caused to coincide with the slots 21. The opposite terminals of the
 50 sleeve are screw-threaded solely, and by this means the part of the sleeve intermediate the ends will move over the portion of the bobbin having the slots therein without obstruction.

From the foregoing description and a knowl- 55
 edge of the art to which this invention per- 55
 tains the advantages of the construction of the bobbin or carrier in the several particulars enumerated will be apparent, and while one form of disk 1 has been illustrated it will be understood that the use of the improved bob- 60
 bin or carrier is not confined to any particular construction of disk. The ejecting mechanism is essentially the same as that well known in the art, except the head or hammer 7, carrying the pin 8, and the operation of such 65
 mechanism is well known and need not be particularly herein set forth further than to explain that the pin 8 is depressed into either end of the slot 17 between the bosses or enlargements 16 and the downward pressure of 70
 the head or hammer on the said bosses will cause each bobbin or carrier engaged to be ejected or expelled from the feeder.

Having thus fully described the invention, what is claimed as new is— 75

1. A bobbin or filling-carrier having a head of cylindrical form with bosses projecting from the end thereof and spaced apart by an intervening slot, the outer side edges of said bosses being straight and parallel to produce 80
 opposite secant surfaces, the slot-walls being also parallel with the said surfaces.

2. A filling-feeder having a head with a series of notches therein and expelling devices including a pusher provided with a head carrying a depending pin, and a series of bobbins or filling-carriers each having a head with bosses projecting from the end thereof, the bosses being separated by an intervening groove open at both extremities, the said 90
 bosses having outer side edges forming secant surfaces.

3. A bobbin or filling-carrier having a body with oppositely-disposed slots, the body adjacent to the terminals of the slots having screw- 95
 threads formed therein, and a metallic sleeve fitted over the said slots and having openings therein corresponding to the latter, the terminals of the said sleeve being provided with inner screw-threads. 100

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

JOSEPH E. LEMYRE.

Witnesses:

FLORENCE J. WALSH,
 DAVID A. TAGGART.