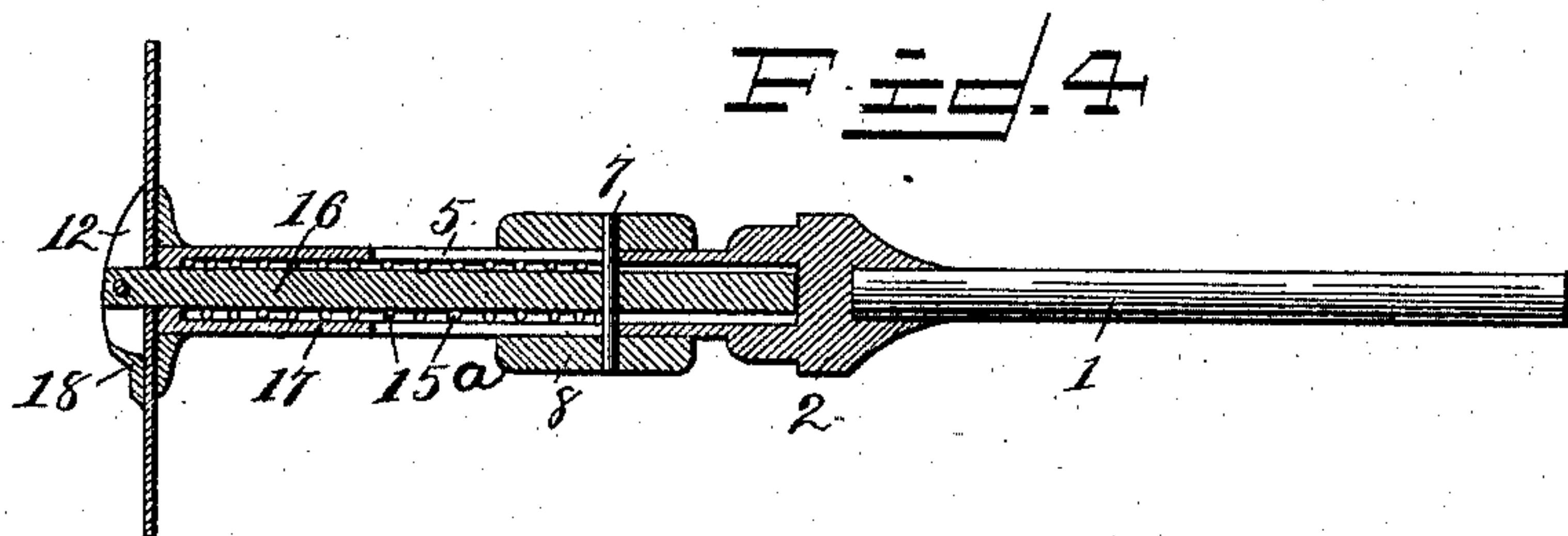
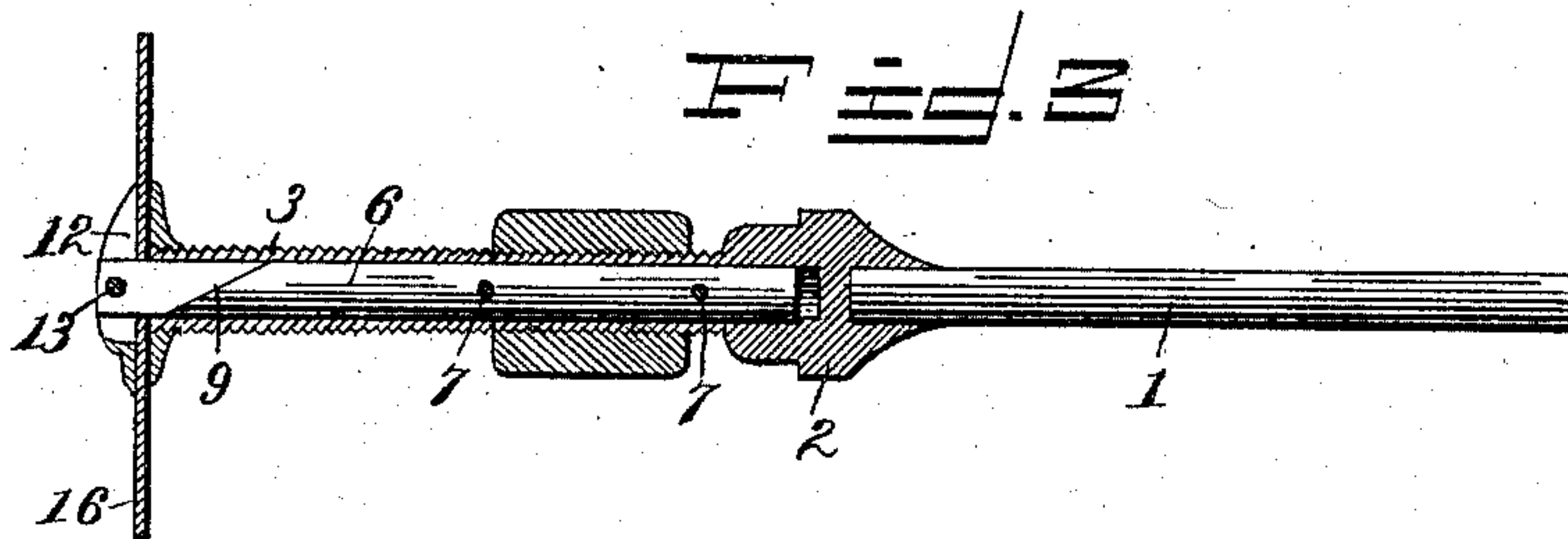
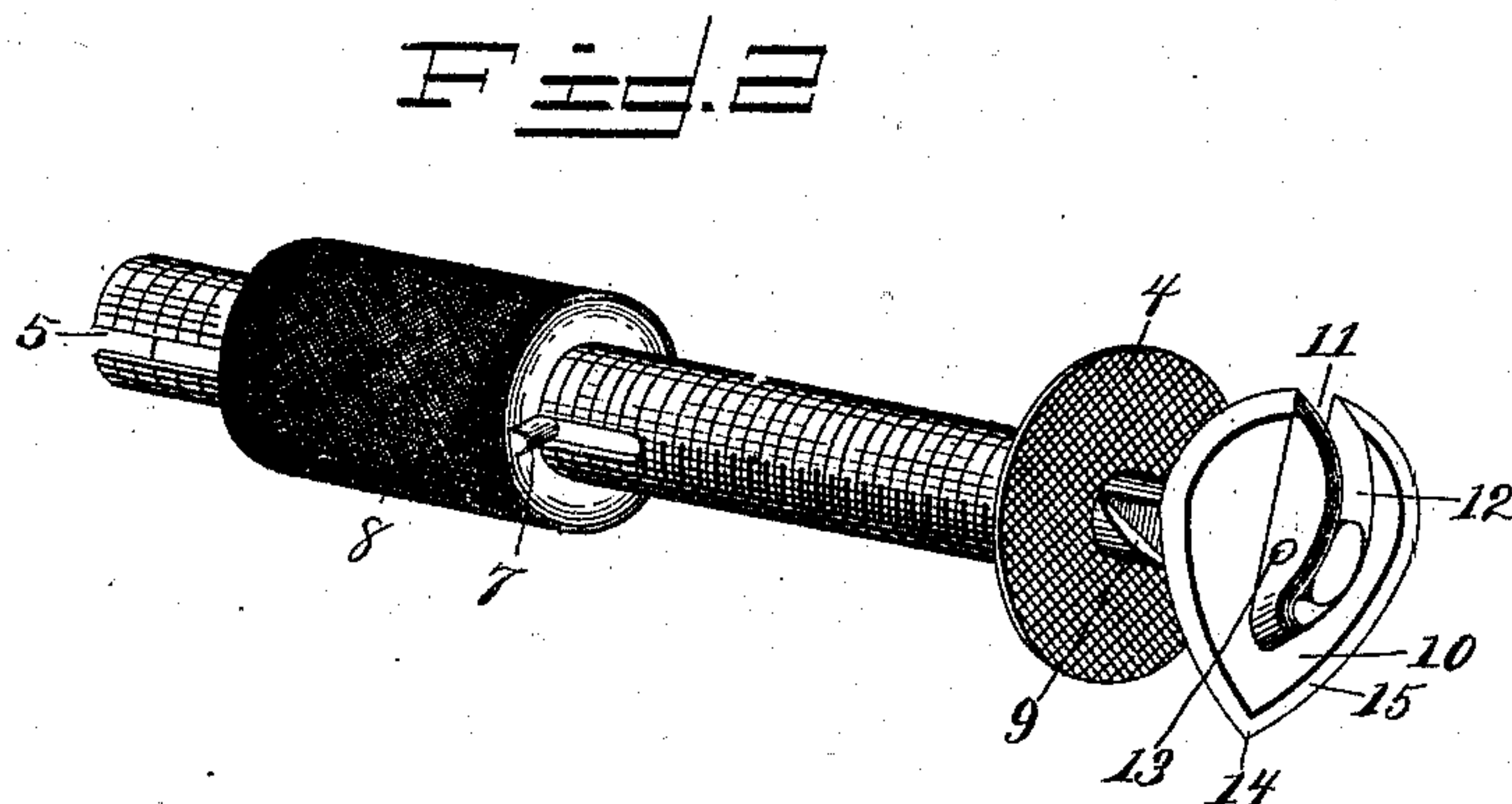
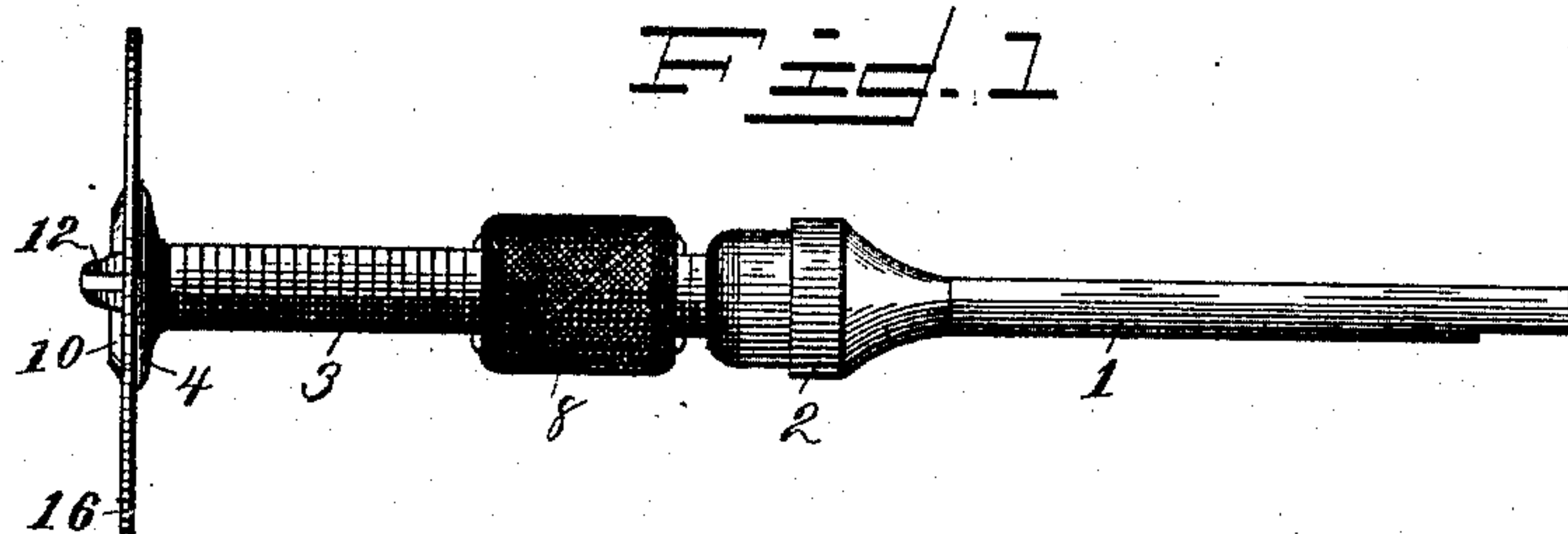


(No Model.)

E. NELSON.
DENTAL DISK HOLDER.

No. 505,121.

Patented Sept. 19, 1893.



Witnesses

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UNITED STATES PATENT OFFICE.

EDWARD NELSON, OF FREDERICK, MARYLAND.

DENTAL DISK-HOLDER.

SPECIFICATION forming part of Letters Patent No. 505,121, dated September 19, 1893.

Application filed January 11, 1893. Serial No. 458,057. (No model.)

To all whom it may concern:

Be it known that I, EDWARD NELSON, a citizen of the United States, residing at Frederick, in the county of Frederick and State of Maryland, have invented a new and useful Disk-Carrier for Dental Engines, of which the following is a specification.

My invention relates to improvements in dental disk-carriers employed in connection with dental engines; the objects in view being to provide a cheap and simple carrying device, the same being so constructed as to be readily passed through and secured fixedly to a disk for dental purposes.

With these objects in view the invention consists in certain features of construction hereinafter specified and particularly pointed out in the claims.

Referring to the drawings:—Figure 1 is a side-elevation of a disk-carrier constructed in accordance with my invention, the same having a disk clamped thereto. Fig. 2 is an enlarged perspective view of the upper end or head of a carrier and its adjacent rod. Fig. 3 is a vertical-longitudinal sectional view of the device. Fig. 4 is a longitudinal-section of a modified construction of holder.

Like numerals of reference indicate like parts in all the figures of the drawings.

1 designates that end of the carrier which takes within and is secured to the hand-piece of a dental-engine, and the same is provided at its upper end with a milled-boss 2 from which extends or rises an externally-threaded tube 3, which tube terminates at its upper end in a flat roughened head 4, and between its ends is provided with diametrically-opposite longitudinal slots 5.

A rod 6, is mounted for sliding in the bore of the tube 3, and is provided near its lower end with outwardly projecting pins 7, that pass through the slots and embrace the upper and lower ends of a milled internally threaded nut 8, whose threads engage those of the tube 3. It will thus be seen that the rod may by rotation of the nut be reciprocated within the tube. The upper end of the rod is provided with a pair of inclined shoulders 9 formed upon its opposite sides, and above these shoulders there is pivoted a spear-shaped head 10, which head 10 has a slot 11 formed therein for the reception of the upper reduced end of

the rod 6, the said slot being provided at opposite sides with flanges 12, which are pivoted to the upper end of the said rod 6 by a pivot 13. It will be seen that the opposite convex edges of the spear-shaped head converge to form an entering-point 14, and at each side of the same the said edges are beveled to form knife-edges 15.

16 designates an ordinary disk, such as is commonly employed by dentists, and in order to mount the same upon the holder the nut is run down or toward the outer end of the threaded tube, which extends the rod 6 and its head some distance beyond the upper or outer end of said tube. By swinging the head so that its under side takes against the inclined-shoulders 9, the said head is brought nearly into line with the said rod, and in fact its disposition depends entirely upon the disk or inclination of the shoulders, as, if the shoulders are nearly longitudinal with the rod 6 the said head may be brought directly into line with the rod. In the present instance however, the shoulders are inclined so that the head is extended from the rod at a very slight angle. By grasping the disk in one hand and forcing the head through the disk it will be seen that the head acting as a spear serves to form a puncture for the reception of the rod 6, and after the head has been passed through and is entirely beyond or clear of the disk it is simply necessary to swing the head to its horizontal or transverse position and run the nut 8 down upon the threaded-tube 3, thus drawing the head down against the disk and clamping the latter against the head 4 of the tube. In this manner the disk is securely fastened in position, and it will be seen that its position, while secure upon the device or holder may be most readily secured, in that the head of the device serves as a spear or point which may readily penetrate the disk and form the necessary opening for the rod 6 and then by swinging the head and simply operating the nut the said disk is clamped securely in position between two heads.

It will be obvious that various means may be provided for drawing the head 10 down upon the disk. I have herein shown a threaded-nut for accomplishing this purpose, the same operating upon the hollow tube, but if

desired, it will be obvious, that a coiled spring may be interposed between the upper end 4 of the said tube and the lower end of the rod 6, the same having a tendency to draw the rod within the tube. Such coiled spring I have illustrated in Fig. 4 of the drawings, the said spring being designated by the numeral 15^a, the rod by the numeral 16, the tube by the numeral 17, and the head by the numeral 18.

10 Having described my invention, what I claim is—

1. In a dental disk carrier, the combination with an externally threaded and intermediately slotted tube flared at its upper end to form a head, and a rod passing throughout the tube and mounted for reciprocation therein and terminating at its outer end at opposite sides with shoulders, of a spear-shaped head slotted and pivoted to the outer end of the rod and adapted to be swung into substantial alignment therewith and against the shoulders, a sleeve interiorly threaded and mounted upon the tube, and pins passing

through the rod and slots and loosely engaging the sleeve, substantially as specified. 25

2. In a dental disk carrier, the combination with a tube having intermediate slots and flared at its outer end to form a head, of a rod extending throughout the tube and beyond the same and having its opposite sides in rear of its outer end provided with inclined shoulders, a spear-shaped head slotted and pivoted on the outer end of the rod and adapted to be swung against the shoulders and substantially in alignment with said rod, pins projecting from the rod through the slots in the tube, and a sleeve mounted for adjustment on the tube and engaged by the pins, substantially as specified. 30 35

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses. 40

EDWARD NELSON.

Witnesses:

EDWIN C. MARKELL,
MARSHALL FOUT.