

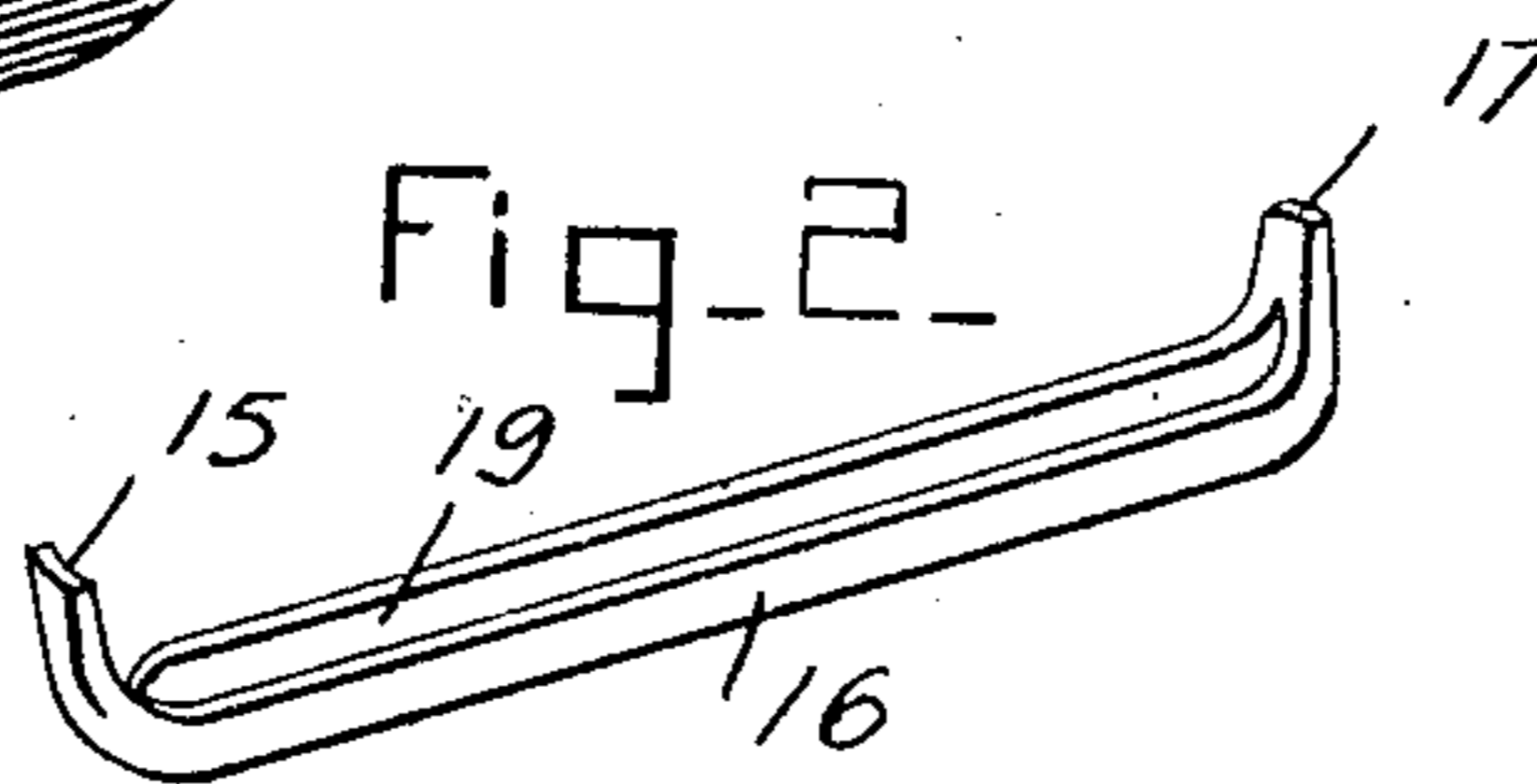
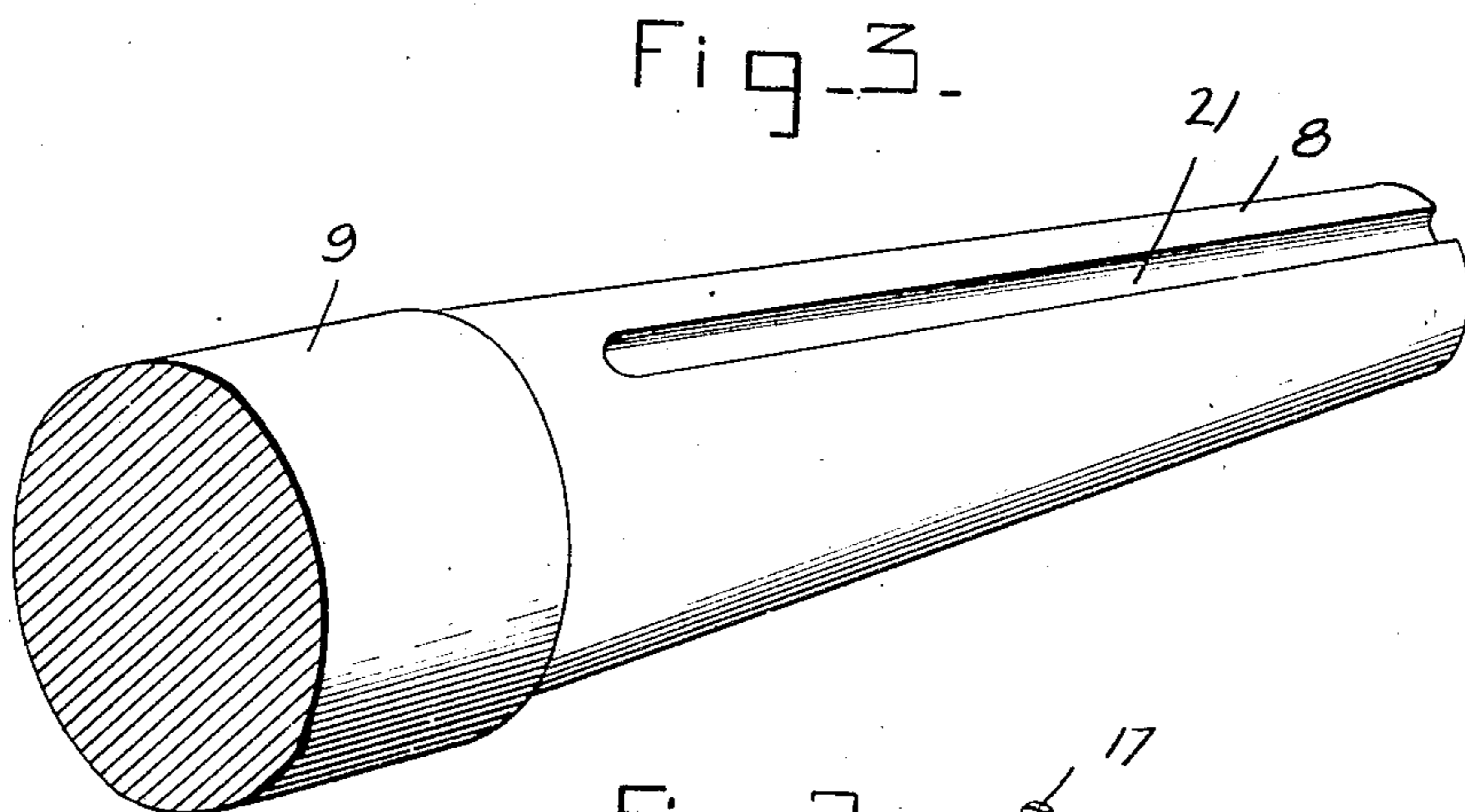
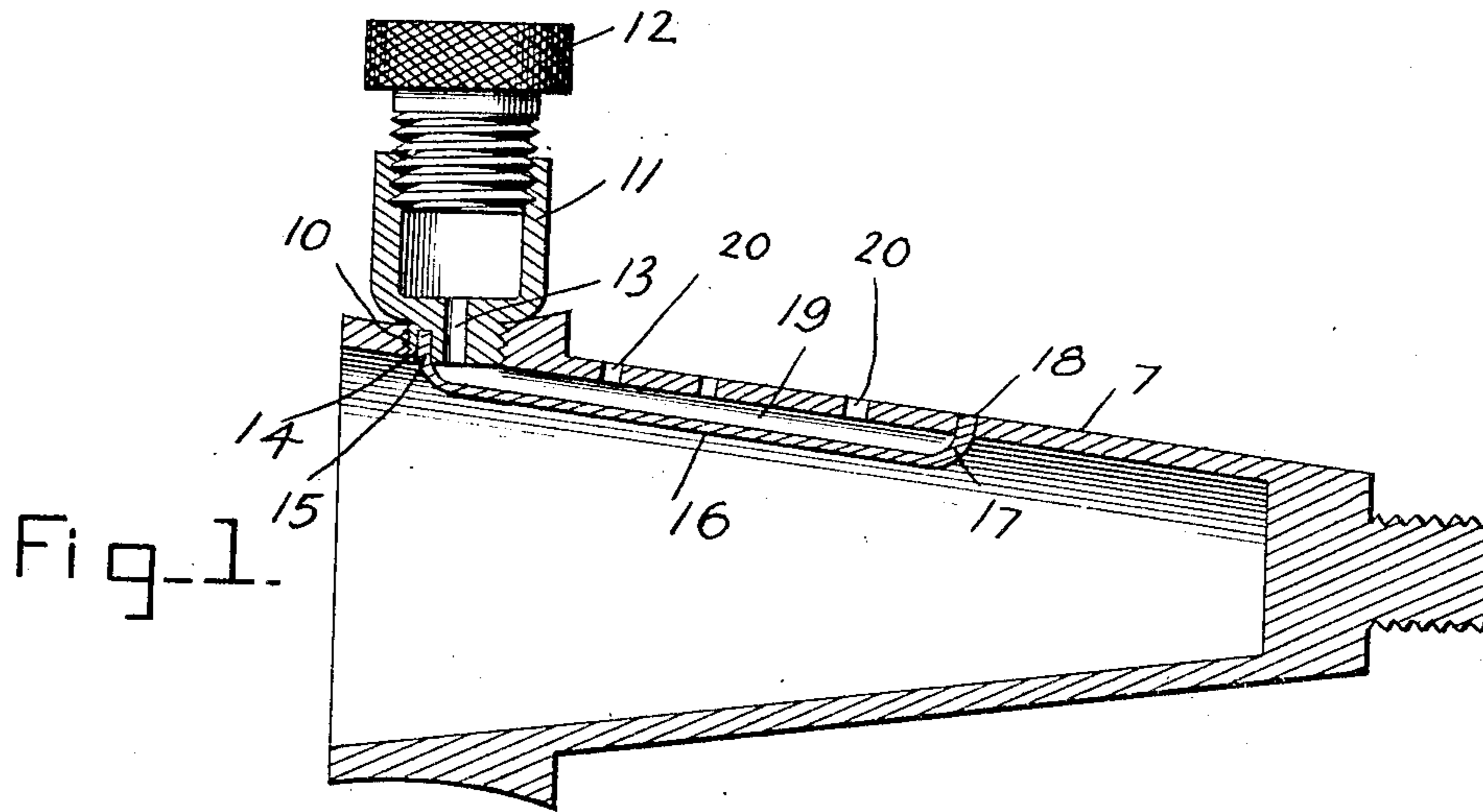
No. 885,403.

PATENTED APR. 21, 1908.

J. THOMI.

AXLE LUBRICATOR.

APPLICATION FILED FEB. 18, 1907.



Witnesses

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UNITED STATES PATENT OFFICE.

JOHN THOMI, OF BURNS, KANSAS.

AXLE-LUBRICATOR.

No. 885,403.

Specification of Letters Patent.

Patented April 21, 1908.

Application filed February 18, 1907. Serial No. 357,953.

To all whom it may concern:

Be it known that I, JOHN THOMI, a citizen of Switzerland, residing at Burns, in the county of Marion, State of Kansas, have invented certain new and useful Improvements in Axle-Lubricators; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The present invention relates to improvements in axle lubricators, and it aims to provide a simple, inexpensive, and efficient device of that class by means of which, when in place, a lubricant may be freely supplied to the skeins on which the vehicle wheels are mounted, without necessitating the removal of the latter, the device being particularly adapted for use in connection with "hard" oil or grease.

A further object resides in the provision of a lubricating device in which the tube, through which the grease is forced by the usual compression cap, serves not only as a duct for the lubricant but also as a means for preventing rotation of the spindle on the axle, acting, in this latter manner, as a key or spline.

The invention further consists in the construction, combination, and arrangements of parts, all as hereinafter more fully described, specifically claimed, and illustrated in the accompanying drawings, in which like parts are designated by corresponding reference numerals in the several views.

Of the said drawings—Figure 1 is a longitudinal section through the improved skein. Fig. 2 is a perspective view of the oil tube. Fig. 3 is a perspective view of the axle, showing the groove formed therein.

Referring more particularly to the drawings, the reference numeral 7 designates the skein in the bore of which is fitted the reduced end 8 of the axle 9, the skein being provided with an opening through which extends the stem 10 of an oil-cup 11, carrying the usual compression-cap 12. The stem of the oil-cup is provided with a central opening 13, through which the lubricant is forced, and it is provided in addition with a second opening 14, in which the upturned end 15 of an oil-tube 16 is fitted, the opposite end 17 of the oil-tube extending through an opening 18 formed through the skein. The oil-tube may be formed entirely independent of the skein, its end 17 being retained in the skein

opening by any preferred means, or, if desired, the skein and oil-tube may be formed from a single casting.

As shown in Fig. 2, both ends of the oil-tube are completely closed, while the upper surface thereof between the ends 15 and 17 is provided with a longitudinal groove 19, forming a duct, through which the lubricant is forced when the compression-cap is tightened in the oil-cup. The innermost end of the duct, so formed, is disposed directly beneath and in close proximity to the lower end of the opening 13 in the oil-cup, so that said duct and opening form a practically continuous channel. The skein is provided with a series of openings 20 formed therethrough directly above the oil-tube, thus serving as outlet ports for the lubricant.

From the foregoing, it will be apparent that when the compression-cap is tightened or moved downwardly in the oil-cup, the lubricant contained in the latter will be forced through the opening 13 and duct 16, and finally through the outlet ports 20. It is to be understood, however, as above stated, that the present invention is adapted especially for use in connection with "hard" oil or grease, so that there will be no tendency of the lubricant to be expressed through the outlet ports unless the compression-cap is positively tightened in the oil-cup. The invention, therefore, differs from lubricating devices in which a liquid lubricant is used, since, in the latter instance, there would be a tendency of the lubricant to flow continuously from the oil-cup and out through the ports, thus rendering the device useless and defeating its purpose.

As shown in Fig. 3, the tapered end of the axle is provided with a longitudinal groove 21, in which the oil-tube fits, so that the latter, in this way, acts similarly to a feather or spline, and thus serves to prevent any rotation of the skein upon the axle, it being understood that the metal from which the oil-tube is constructed has sufficient strength to serve such purpose.

What is claimed, is—

1. The combination of a bored skein provided with an outlet port and with an opening located adjacent said port; an oil-cup having its stem fitted in said opening, said stem being provided with an outlet port and with an opening located adjacent the same; an axle fitted within the skein bore and provided with a longitudinal groove; and an oil-

5 tube fitted within said groove and provided
with a channel formed in its upper face di-
rectly beneath the outlet ports in the skein
and oil-cup, said tube having its opposite
10 ends upturned, one of said ends being fitted
in the opening in the oil-cup stem and the
other end being positively secured to the
skein, to retain the tube in place and prevent
rotation of the skein with respect to the axle.
15 2. The combination of a bored skein pro-
vided with a series of outlet ports and with a
pair of openings located adjacent the end
ports of said series; an oil-cup having its
stem fitted in one of said openings, said stem
20 being provided with an outlet port and with a
separate opening adjacent the same; a lon-
gitudinally-grooved axle fitted within the
skein bore; an oil-tube fitted within said
groove and having its opposite ends up-

turned, one of said ends being secured in the 20
opening in the oil-cup stem and the opposite
end in the other opening in the skein to re-
tain the tube in place and prevent rotating of
the skein with respect to the axle, said tube
having a longitudinal channel formed in its 25
upper face directly beneath the ports in the
skein, one end of said channel lying directly
beneath the port in the oil-cup stem; and a
compression cap carried by said oil-cup, for
forcing the lubricant therein through said 30
cup port and channel and out through said
skein ports.

In testimony whereof, I affix my signa-
ture, in presence of two witnesses.

JOHN THOMI.

Witnesses:

HENRY SPALLINGER,
JOHN F. FREEMAN.