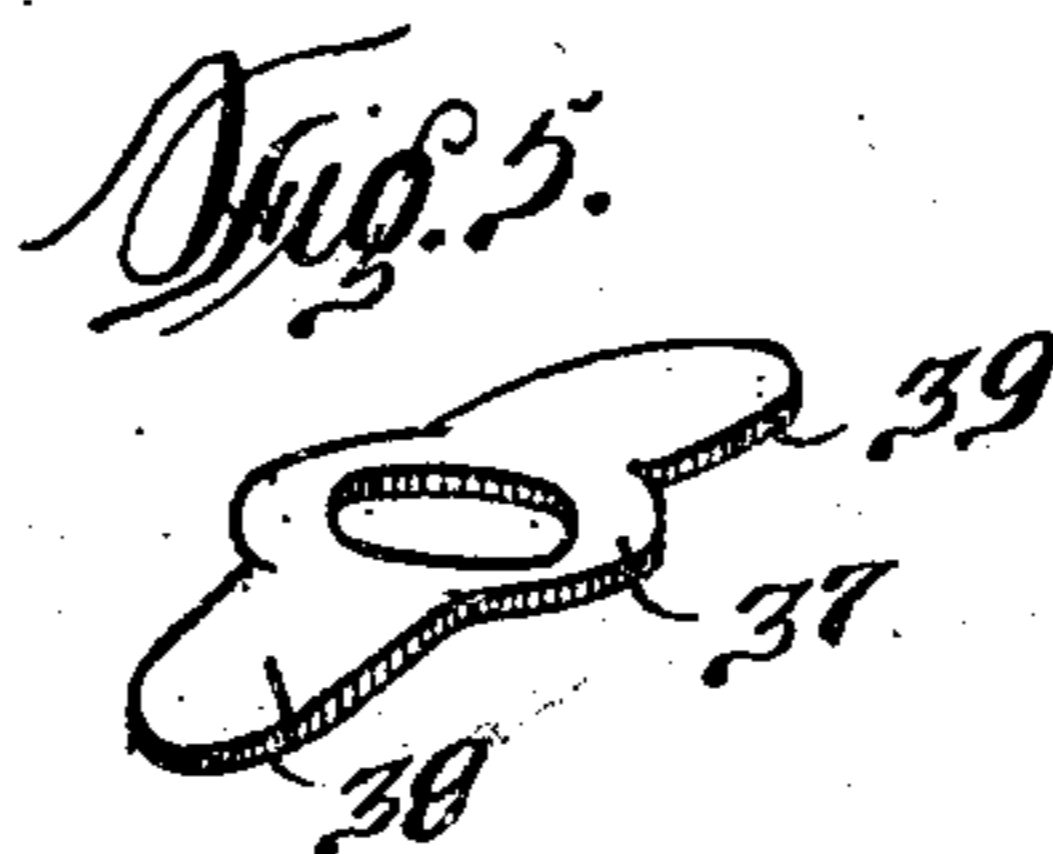
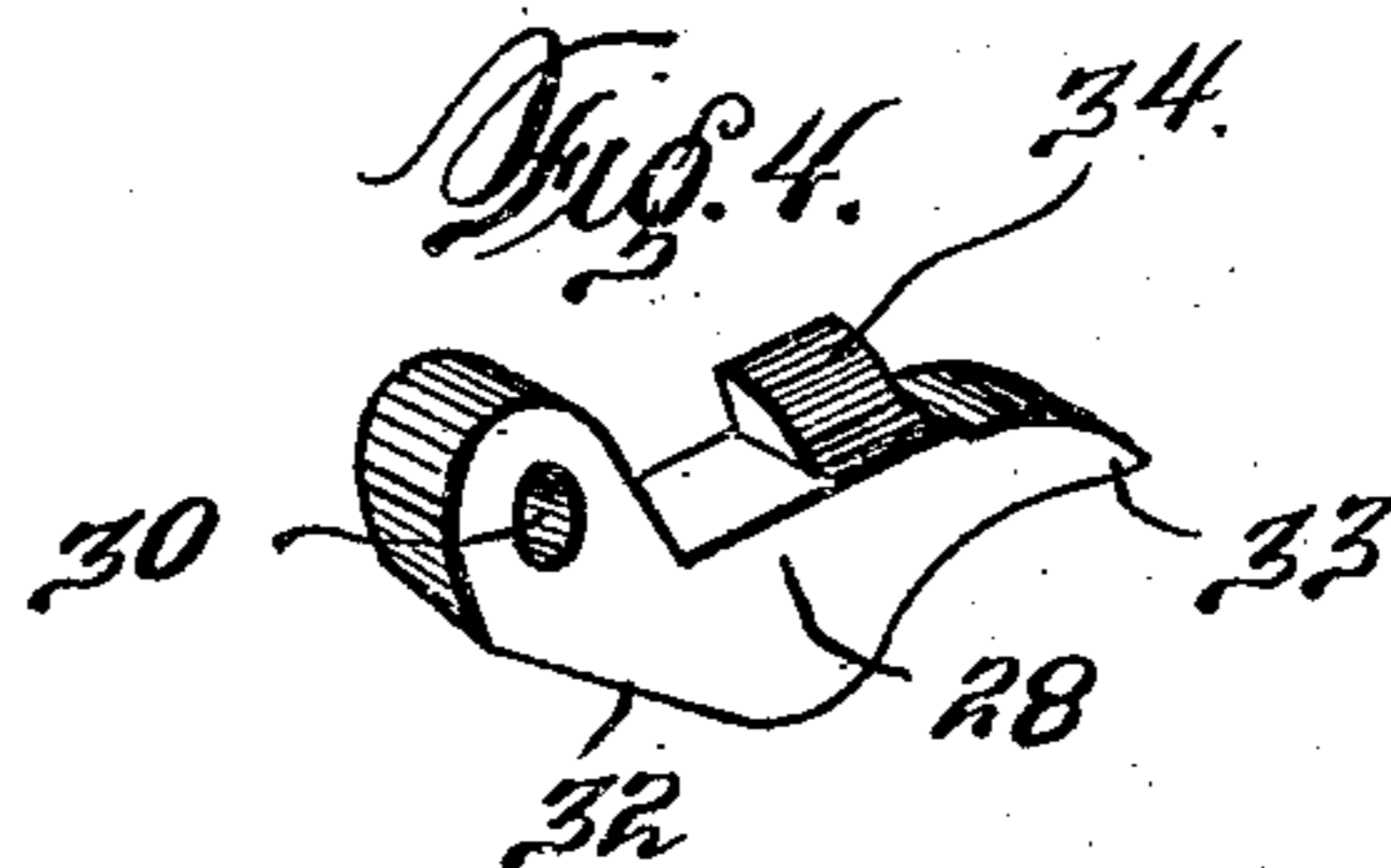
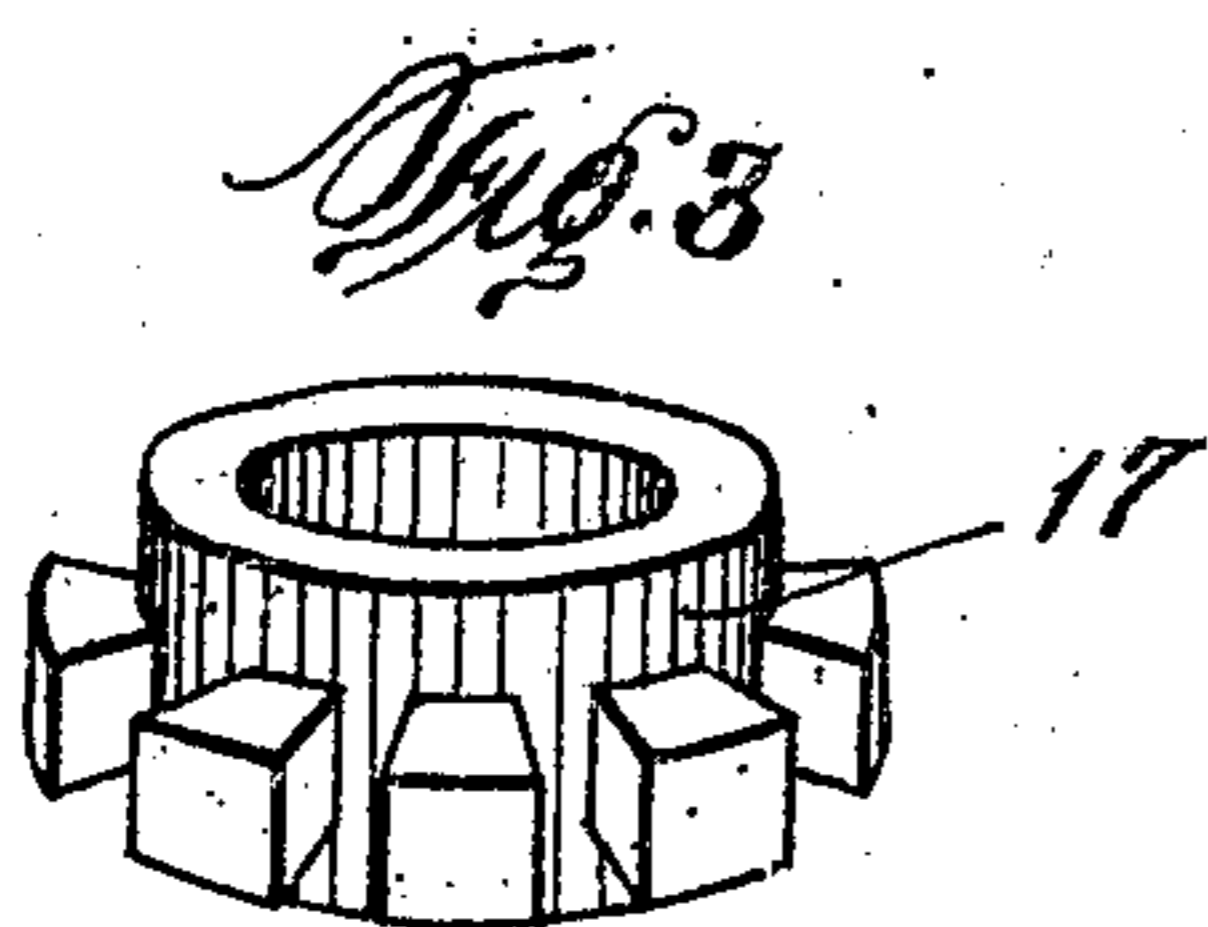
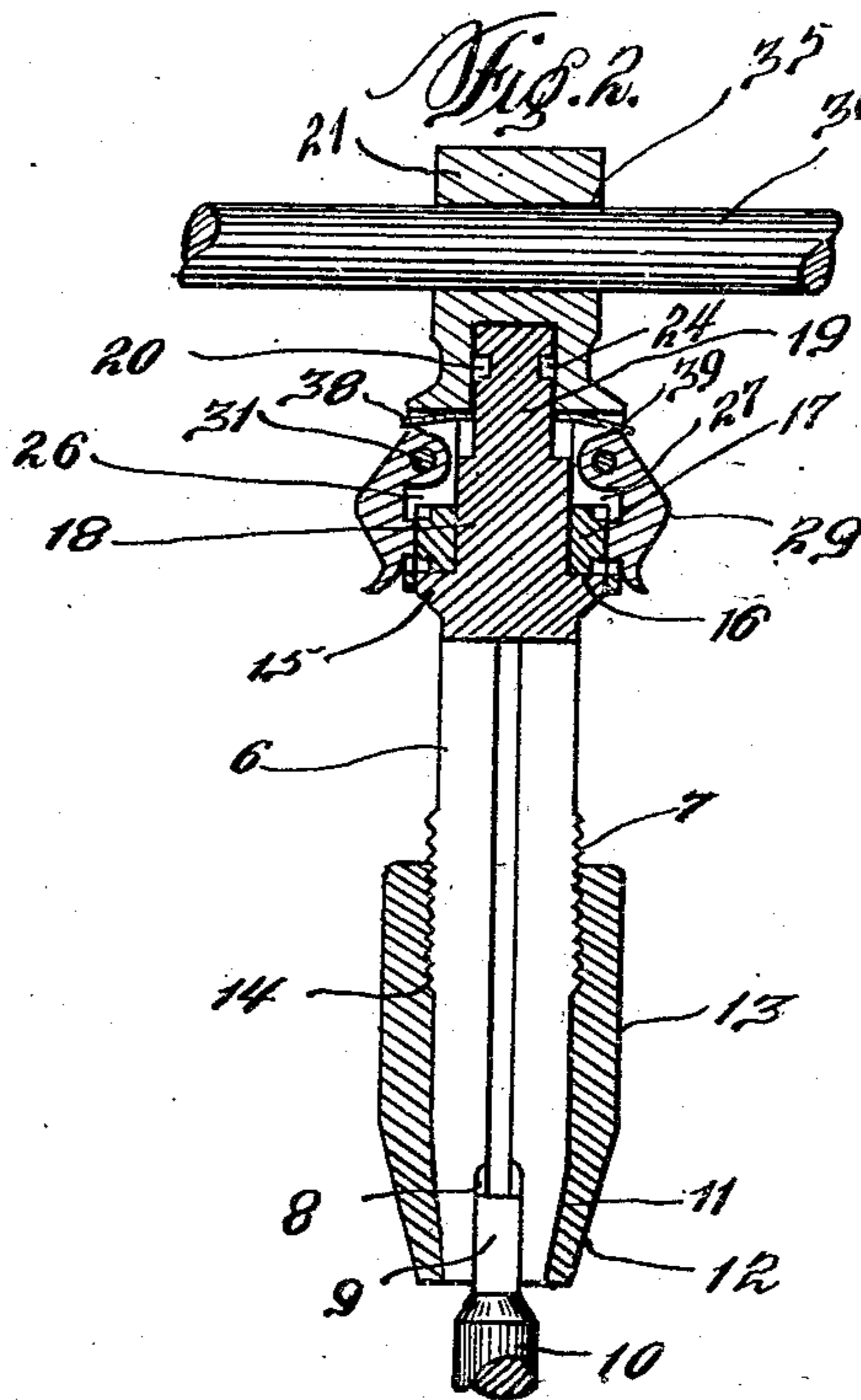
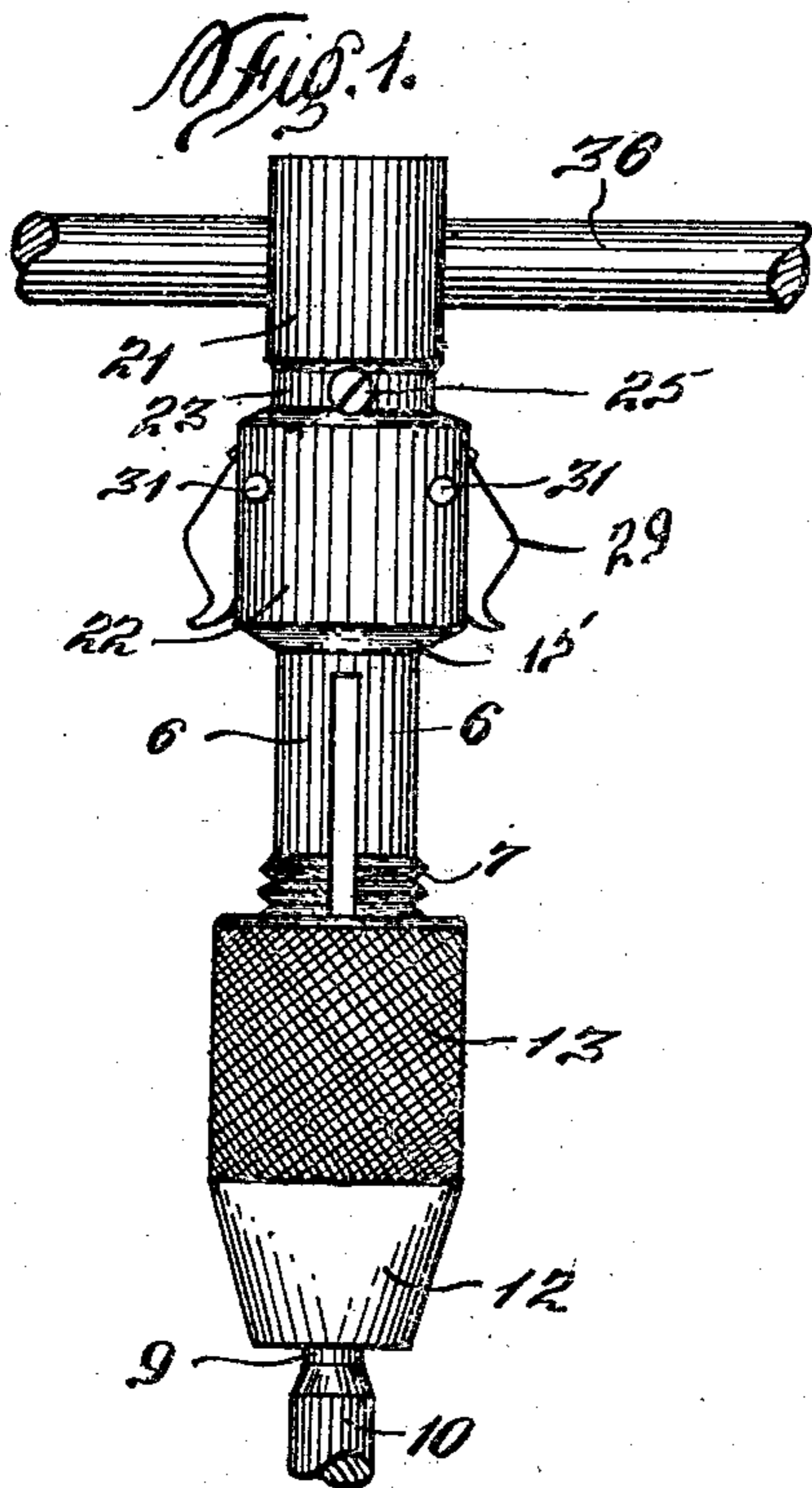


J. VOLBERT.
 RATCHET TOOL HOLDER.
 APPLICATION FILED JAN. 28, 1910.

959,408.

Patented May 24, 1910.



WITNESSES

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UNITED STATES PATENT OFFICE.

JOHN VOLBERT, OF PITTSBURG, PENNSYLVANIA.

RATCHET TOOL-HOLDER.

959,408.

Specification of Letters Patent.

Patented May 24, 1910.

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To all whom it may concern:

Be it known that I, JOHN VOLBERT, a citizen of the United States of America, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Ratchet Tool-Holders, of which the following is a specification, reference being had therein to the accompanying drawing.

10 This invention relates to a ratchet tool holder, and the object thereof is to provide a holder of such class in a manner as hereinafter set forth and claimed and which shall be comparatively simple in its construction
15 and arrangement strong, durable, efficient in its use, conveniently manipulated when desired to change from being rotated in one direction, quickly locked to prevent movement of the holder when occasion so requires,
20 and inexpensive to manufacture.

With the foregoing and other objects in view the invention consists of the novel construction, combination and arrangement of parts as hereinafter more specifically described and illustrated in the accompanying
25 drawing, wherein is shown the preferred embodiment of the invention, but it is to be understood that changes, variations and modifications can be resorted to which come
30 within the scope of the claim hereunto appended.

In the drawings wherein like reference characters denote corresponding parts throughout the several views,—Figure 1 is
35 an elevation of a ratchet tool holder in accordance with this invention, the handle being broken away at each end, Fig. 2 is a vertical sectional view thereof, the handle being broken away and also the tool, Fig.
40 3 is a detail illustrating the ratchet wheel, Fig. 4 is a detail illustrating one of the locking pawls, and Fig. 5 is a like view illustrating the holding spring.

Referring to the drawings in detail, the
45 holder comprises a split body portion 6 having peripheral threads 7 and a socket 8 for the reception of the shank 9 of the tool 10. The body portion at its lower end tapers and is engaged by the tapering lower portion 12
50 by a sleeve 13 for clamping the shank 9 in the socket 8 of the body portion 6. The sleeve 13 is formed with interior threads 14 which engage with the threads 7 of the body portion 6 whereby the sleeve 13 is swung in
55 the position to which it has been adjusted.

When the lower end of the sleeve 13 is shifted away from the lower end of the body portion 6 the shank 9 of the tool 10 is released, but when the sleeve 13 is shifted in the opposite direction the sections of the
60 body portion are moved to engage the shank 9 so as to clamp it in the socket 8.

The body portion 6 at one end is enlarged as at 15 and flattened as at 16 to provide a seat for a ratchet wheel 17. Projecting from
65 and formed integral with the enlarged portion 15 of the body portion 6 is a shank formed with two different diameters, the portion of larger diameter being indicated by the reference character 18 and the por-
70 tion of smaller diameter being indicated by the reference character 19, the latter at a point near one end being formed with an annular groove 20. The ratchet wheel 17 is shrunk upon the portion 18 of the shank and
75 is of a diameter so as to be flush with the enlarged end 15 of the body 6. The ratchet wheel 17 is of less thickness than the length of the portion 18 of the shank.

Mounted upon the reduced portion 19 of
80 the shank and inclosing the enlarged portion 18 of the shank and also inclosing the part of the portion 15 is a shifting head comprising end portions 21, 22 and an intermediate portion 23. The end portion 22 is of
85 greater diameter than the end portion 21 and the latter is of greater diameter than the intermediate portion 23. The shifting head is formed with a socket 24 into which extends the reduced portion 19 of the shank
90 and projecting through the intermediate portion 23 of the head and engaging in the groove 20 is a set screw 25 which couples the shank with the head, but allows of a
95 rotative movement of the head upon the shank. The end portion 22 is cut away at diametrically opposite points to provide a pair of openings 26, 27 and in the opening
100 26 is mounted a pawl 28, and in the opening 27 is mounted a pawl 29. Each of said pawls is formed at one end with an inwardly-extending apertured offset portion 30
through which extends the pivot 31 for coupling its respective pawl to the end portion 22. The pivots 31 are secured to the
105 end portion 22 as clearly shown in Fig. 1. Each of the pawls is furthermore provided on its outer face with a flat bearing surface 32 and also provided at one end with a thumb-piece 33 and has projecting from its
110

inner face a beveled tooth 34 which is adapted to engage the teeth of the ratchet wheel 17 so as to cause the rotating of the body portion 6 of the head when the head
 5 is rotated in one direction and to ride over the teeth of the pawl when the head is rotated in the opposite direction so that movement will not be imparted to the body portion 6. The end portion 21 is formed
 10 with an opening 35 through which extends a handle bar or member for rotating the head.

Mounted upon the reduced portion 19 of the shank is a spring holding element consisting of a body portion 37 formed with a
 15 pair of resilient and laterally disposed arms 38, 39, the arm 38 associating with the pawl 28 and the arm 39 associating with the pawl 29. The resilient arms 38, 39 engage the piv-
 20 oted ends of the pawls when they are in operative position and engage the flat bearing surfaces 32 when the pawls are swung to inoperative position so as to maintain the pawls in such position. When one of the
 25 pawls is swung out of engagement with the ratchet wheel, the body portion 6 can only be rotated in one direction in unison with the head, when the other pawl is swung out of engagement and the first-mentioned pawl
 30 replaced the body portion can be rotated in the opposite direction, but when both pawls are swung out of engagement with the

ratchet wheel, the handle can be rotated independently of the body portion.

What I claim is:

A ratchet tool holder comprising a body
 portion adapted to have a tool coupled there-
 to, a ratchet wheel fixed to said body por-
 tion, a rotatable head straddling the body
 portion and shiftably connected thereto, a
 40 pair of oppositely disposed pawls pivotally connected to said head and each adapted to engage said ratchet wheel to couple the body
 portion with the head so as to rotate there-
 with when the head is rotated in one direc-
 45 tion and to ride over the teeth of the ratchet wheel when the head is rotated in the opposite direction, a spring holding element surrounding the body portion and permanently
 in engagement with the pivoted ends of said
 50 pawl and provided with a pair of resilient arms adapted to engage said pawls for hold-
 ing them in an inoperative position, each of
 said pawls provided with a flat bearing sur-
 face adapted to be engaged by one of said
 55 arms for maintaining the pawl in an inoperative position when shifted to such position.

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

JOHN VOLBERT.

Witnesses:

KARL H. BUTLER,
 MAX H. SROLOVITZ.