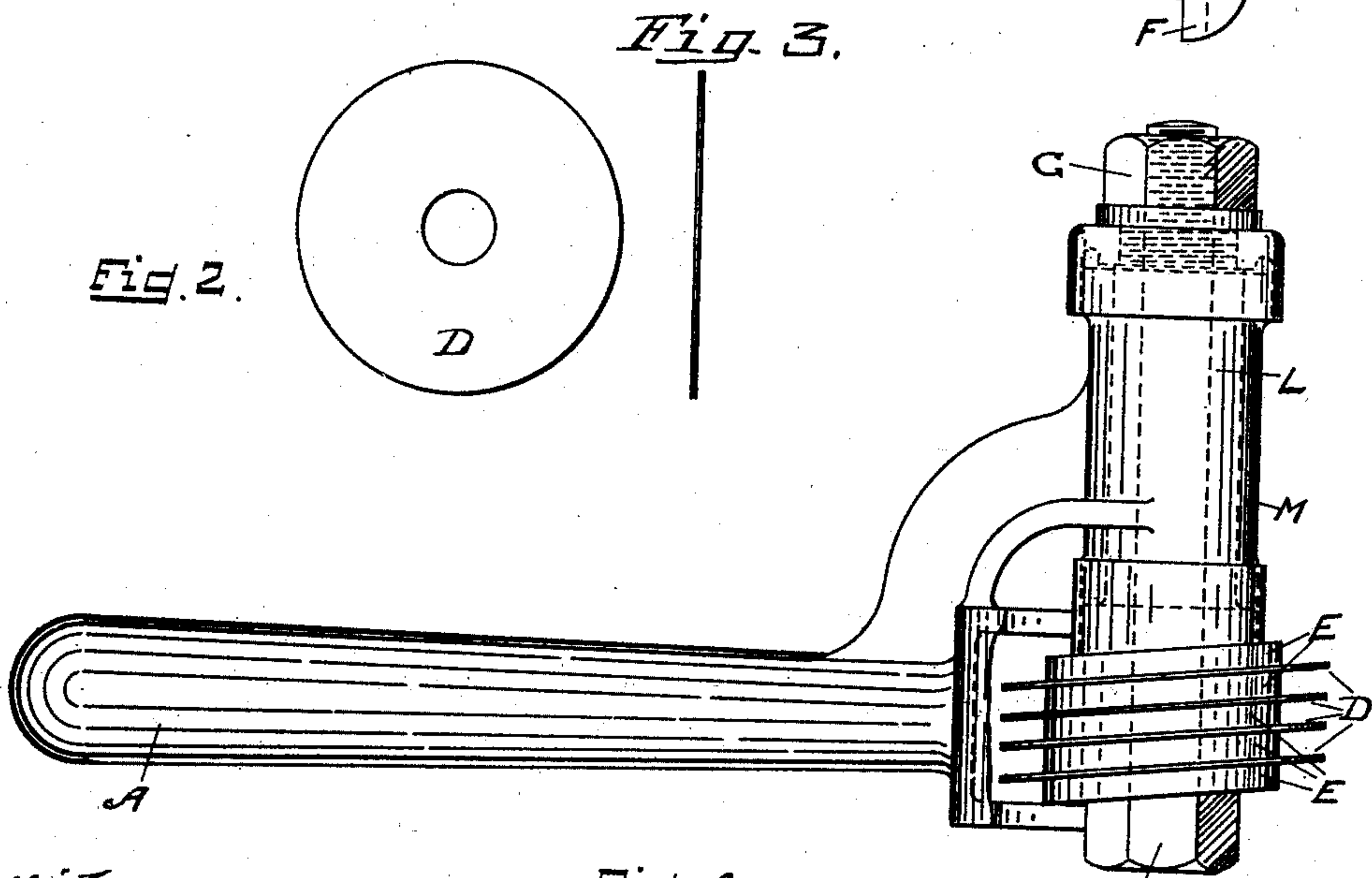
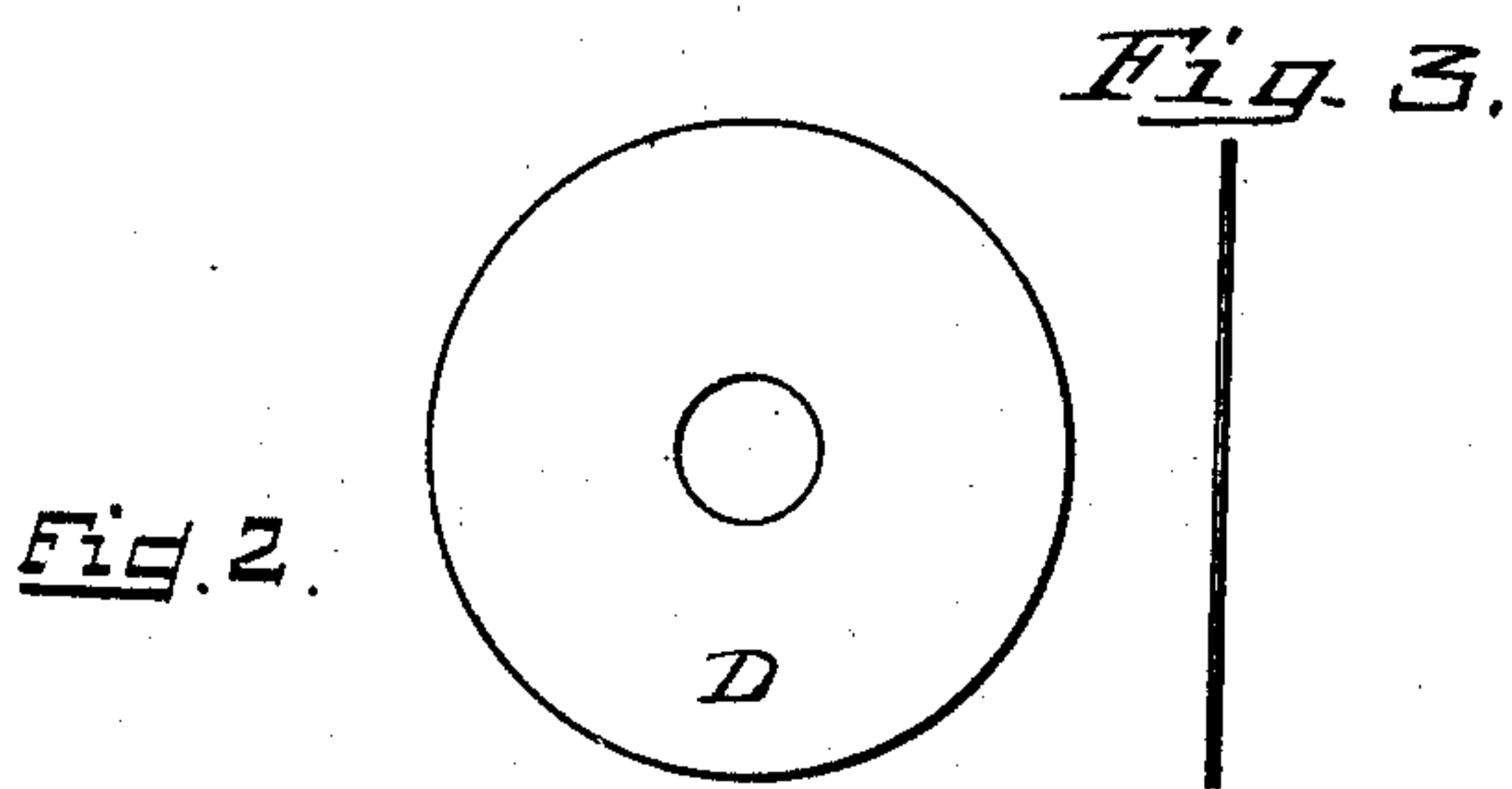
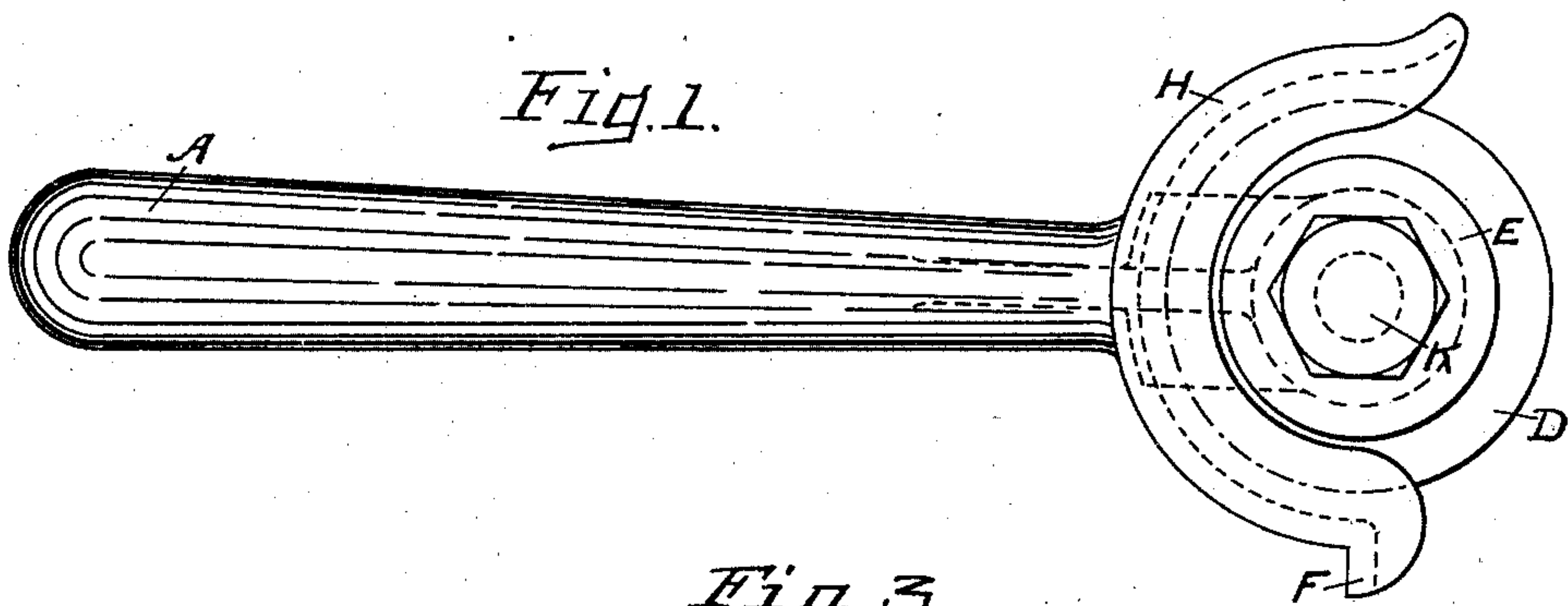


F. TRIER.
 TOOL AND APPARATUS FOR DRESSING, TURNING, AND SHAPING STONE, EMERY WHEELS,
 AND THE LIKE.
 APPLICATION FILED FEB. 3, 1908.
 908,908. Patented Jan. 5, 1909.



Witnesses:

W. H. Kiefer
C. D. Kiefer

Fig. 4.

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By James L. Norris

et al.

UNITED STATES PATENT OFFICE.

FRANK TRIER, OF WESTMINSTER, LONDON, ENGLAND.

TOOL AND APPARATUS FOR DRESSING, TURNING, AND SHAPING STONE, EMERY-
WHEELS, AND THE LIKE.

No. 908,908.

Specification of Letters Patent.

Patented Jan. 5, 1909.

Application filed February 3, 1908. Serial No. 414,113.

To all whom it may concern:

Be it known that I, FRANK TRIER, a subject of Great Britain, residing at No. 1 Great George street, Westminster, London, S. W., England, have invented new and useful Improvements in Tools and Apparatus for Dressing, Turning, and Shaping Stone, Emery-Wheels, and the Like, of which the following is a specification.

This invention relates to tools and apparatus for dressing, turning and shaping stone, grindstones, emery and carborundum wheels and the like.

According to this invention, one or more thin metal disks (preferably several thin disks of hardened steel) is or are mounted on a spindle in such a manner that the planes of the disk are inclined to the axis of the spindle with their peripheries lying preferably in the envelop of a cylinder (or cylinders) concentric with the said axis.

In the accompanying drawing, Figure 1 is a side elevation of a dressing tool constructed in accordance with my present invention. Fig. 2 is a side elevation and Fig. 3 is an edge view of one of the hardened disks, and Fig. 4 is a plan view of the tool shown in Fig. 1, a portion of the protecting hood being broken away.

Similar parts are designated by the same reference characters in the several views.

The tool shown in the present embodiment of my invention comprises generally, a holder having a handle portion A which is designed to be held in the hand of the operator, and a bearing M is formed preferably integrally with the handle, and is offset laterally thereof toward one of its ends.

A spindle which is in the form of a bushing L is journaled in the bearing M and serves as a revoluble support for the cutter tool, this bushing being held from axial movement in the bearing and is provided at one end with a beveled or obliquely arranged surface to receive the cutter and disks. The disks D are mounted with suitable washers between them upon a locking device which in the present instance is in the form of a bolt K, the head of which is beveled at its underside, according to the angular inclination of the disks and the cutter disks are firmly locked so as to revolve with the bushing by means of this bolt and a cooperating nut G which engages the opposite end of the bushing. When the cutter disks are mounted in this manner, they are substantially in aline-

ment with the longitudinal axis of the handle portion A, so as to receive the pressure with which it is forced against its work in a straight line, although the cutter overhangs the bearing. This overhanging arrangement, however, enables the cutter disks to be readily renewed or others substituted therefor by merely removing the locking bolt so that it is unnecessary to expose the bearing to grit, which would quickly destroy the same.

In order to protect the operator from particles of material removed from the abrading wheel a segmental hood is preferably provided upon the holder, a hood H being shown in the present instance, which proceeds from the end of the handle portion adjacent to the cutter and curves forwardly for a suitable distance over the top and bottom of the cutter, the inner side of this hood being preferably recessed so as to accommodate the disks of the cutter and thereby provide a compact construction.

The disks are preferably very thin, so as to present edges as sharp as possible to the work. As the disks wear away they retain their original sharpness of edge and when worn down to the washers, the latter may be replaced by washers of smaller diameter to enable the disks to be still further utilized.

When brought into contact with moving work, such as for instance the face of a grindstone, or emery wheel which it is desired to true, the disks will commence to roll and attain the circumferential speed of the stone or wheel.

Owing to its inclination to the axis of rotation, each disk will act upon a surface, the width of which is proportionate to the diameter and inclination of the disk. By pressing the disks against the work the material it is desired to remove will be disintegrated by the roll-pressure of their edges.

A projection F is provided on the lower end of the hood to act as a stop or pivot when held against the rest of a grindstone or other support. The arrangement as shown in the present instance has the advantage that all grit and the like is effectually excluded from the bearing which would otherwise wear rapidly besides having the further advantage of enabling the disks and washers to be very easily and quickly mounted or dismounted.

Instead of manipulating the dressing tool by hand, it will be understood, of course, that the same may be attached to the slide rest of

a lathe or to any other appropriate part of a machine in order that the dressing operation may be performed advantageously in such instances.

5 What I claim and desire to secure by Letters Patent is:—

1. A dressing tool of the class described comprising a holder having a handle portion, a bearing offset laterally of the handle portion, and arranged towards one of its ends, 10 a spindle revolubly mounted in the said bearing, and a cutter fixed upon one end of said spindle and arranged substantially in alinement with the handle portion.

15 2. A dressing tool of the class described comprising a holder provided with a handle portion, a bearing offset laterally of the handle portion, a spindle revolubly journaled in said bearing, an overhanging cutter arranged on one end of the spindle substantially 20 in alinement with the handle portion, and means for detachably locking a cutter to the spindle.

25 3. A dressing tool of the class described comprising a holder provided with a handle portion, a bearing offset laterally of the handle and at an angle thereto, a spindle composed of a hollow bushing journaled in said bearing, a cutter arranged at one end of said 30 bushing and in substantial alinement with the handle portion, and a locking bolt extending through the bushing and cooperating with the cutter to lock the same to the bushing.

35 4. A dressing tool of the class described comprising a holder provided with a handle portion a bearing offset laterally of the handle and arranged in angular relation thereto, a bushing journaled in the bearing 40 and provided with an oblique surface at one end, a cutter composed of a series of disks

arranged also in oblique angular relation to the axis of the bushing and bearing against the oblique surface thereof, and a bolt extending through the bushing and cooperating 45 with the cutter disks to lock the same to the bushing.

5. A dressing tool of the class described comprising a holder having a handle portion, a bearing offset laterally of the handle portion and arranged in angular relation thereto, 50 a spindle journaled in the bearing, a cutter mounted upon one end of said spindle and arranged substantially in alinement with the handle portion, and a segmental hood arranged between the cutter and the adjacent 55 end of the handle portion, said hood being of segmental form and extending in opposite directions from the handle portion so as to overlap the top and bottom of the cutter for 60 a suitable distance.

6. A dressing tool of the class described comprising a holder provided with a handle portion, a bearing offset laterally of the 65 handle portion, a spindle journaled in the bearing and carrying an overhanging cutter which is arranged in substantial alinement with the handle portion, a segmental hood proceeding from the handle portion and overlying at the top and bottom of the cutter for 70 a suitable distance, and a projection formed on the lower end of said hood and adapted to engage a relatively fixed support as a pivot.

In testimony whereof I have signed my 75 name to this specification in the presence of two subscribing witnesses.

FRANK TRIER.

Witnesses:

H. D. JAMESON,
A. NUTTING.