

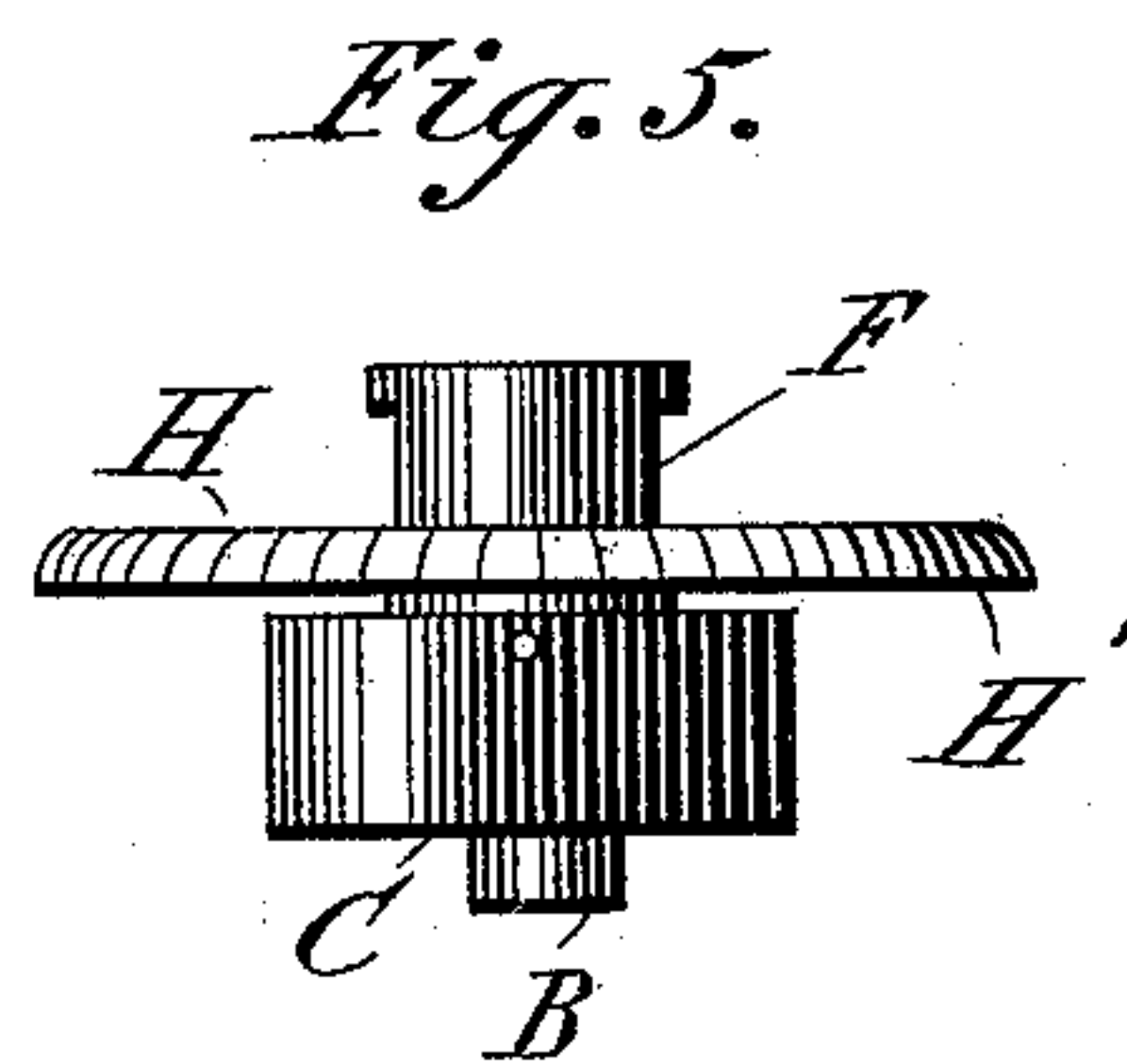
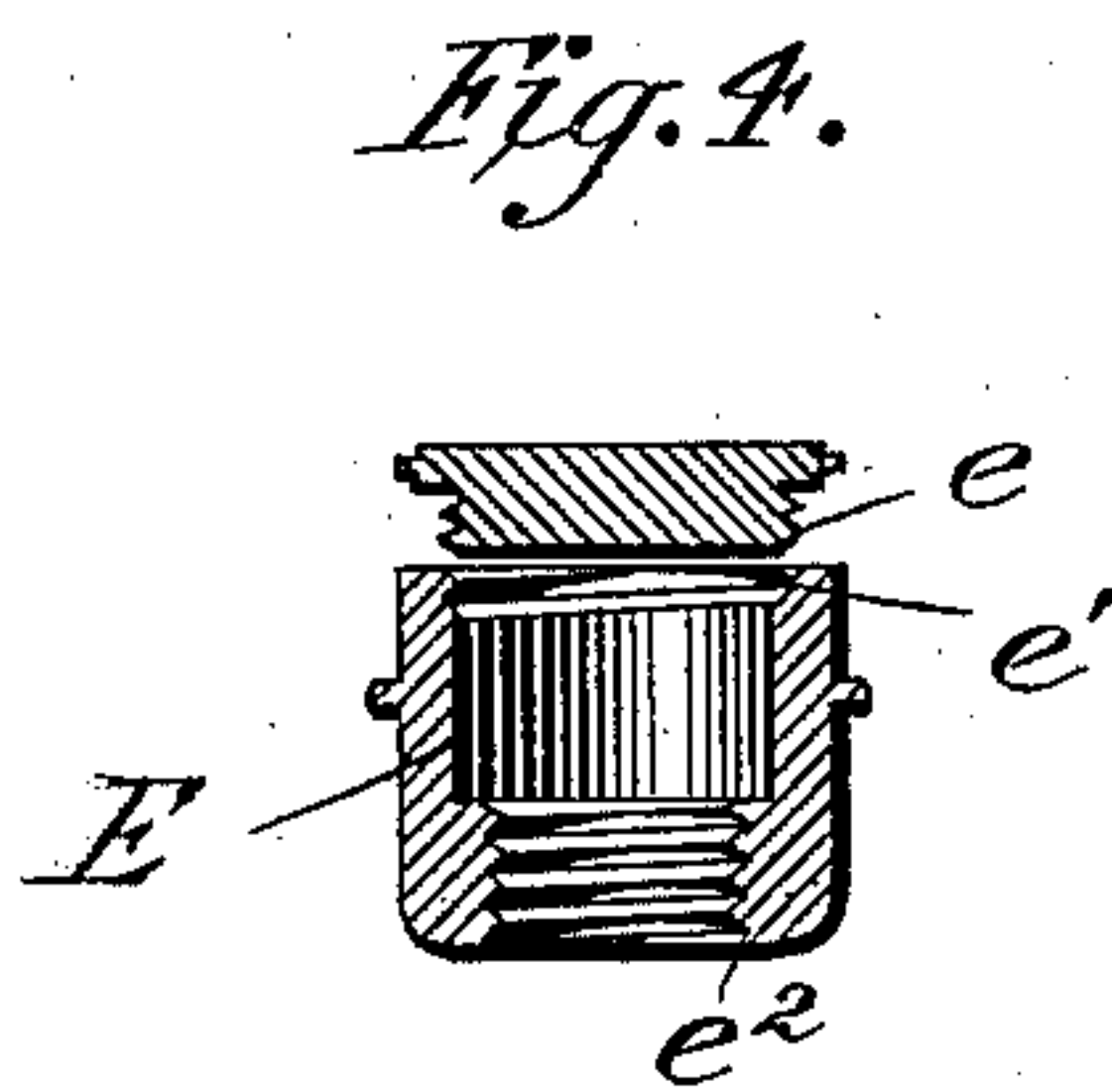
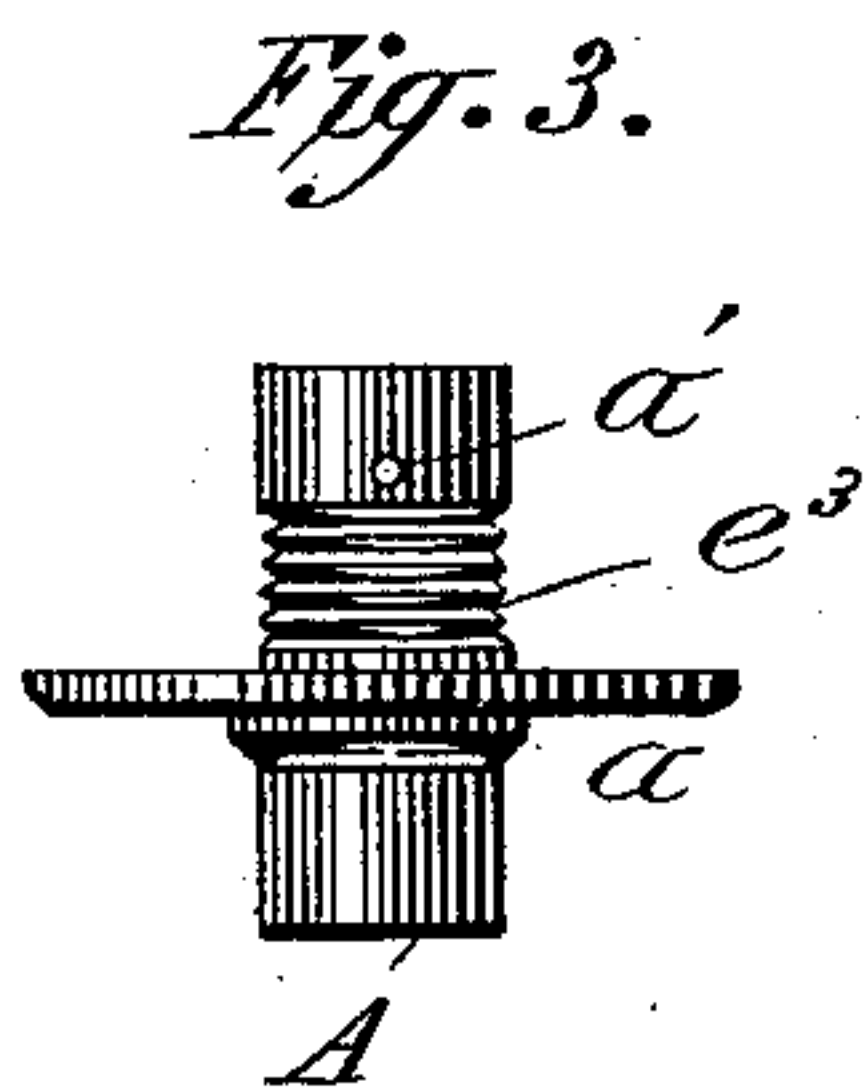
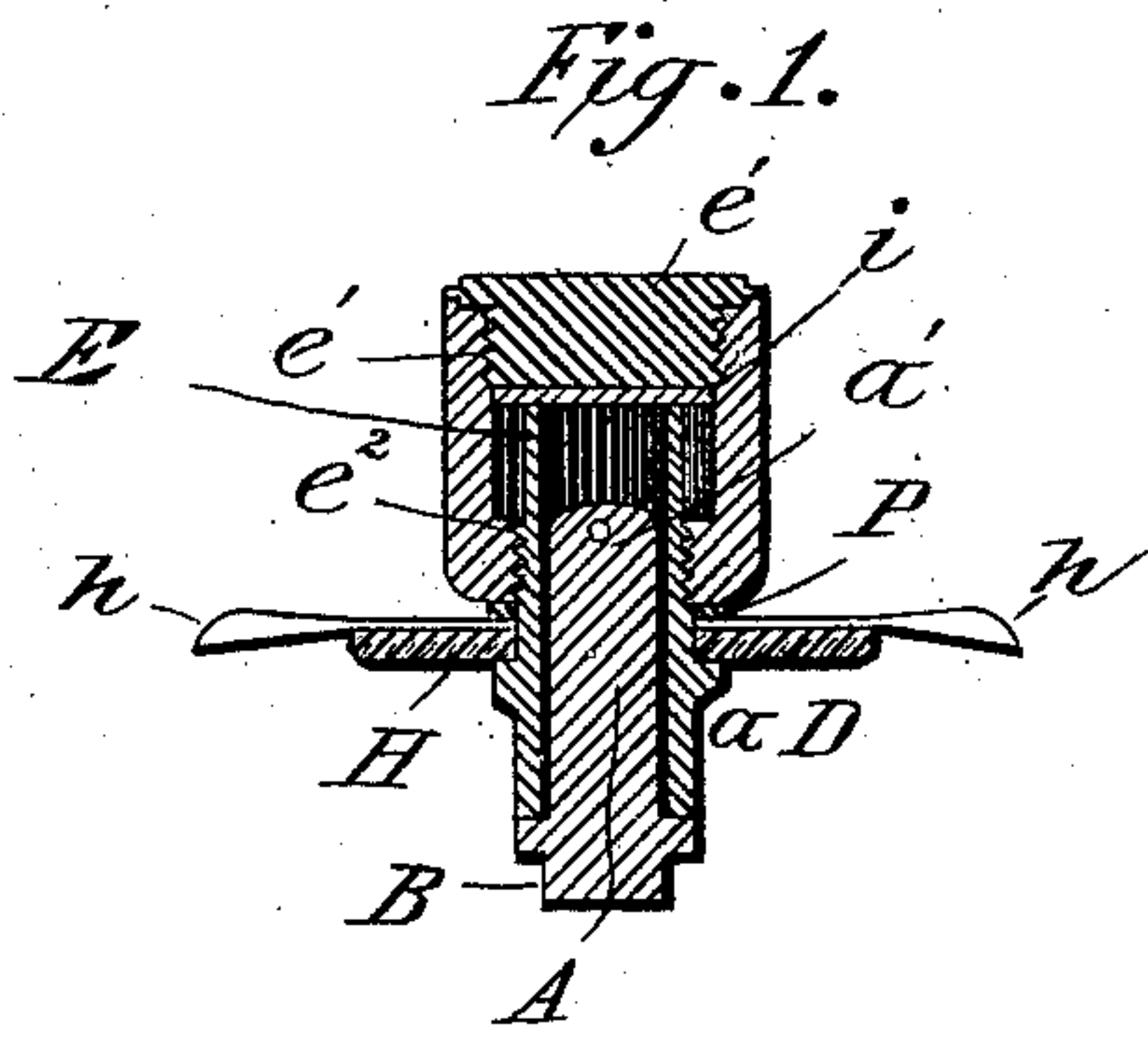
(Model.)

R. W. GORMLY.

BURR WHEEL FOR KNITTING MACHINES.

No. 375,351.

Patented Dec. 27, 1887.



Witnesses:
John T. Gormly
David H. Gormly

Inventor:
Robert W. Gormly

UNITED STATES PATENT OFFICE.

ROBERT W. GORMLY, OF TROY, NEW YORK.

BURR-WHEEL FOR KNITTING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 375,351, dated December 27, 1887.

Application filed September 20, 1886. Serial No. 214,095. (Model.)

To all whom it may concern:

Be it known that I, ROBERT W. GORMLY, of the city of Troy, in the county of Rensselaer and State of New York, have invented certain
5 new and useful Improvements in Burr-Wheels for Knitting-Machines, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 is an axial section of my improved
10 burr-wheel. Fig. 2 is a view of a portion of the burr-disk. Fig. 3 is a side view of the bushing and the supporting-plate of the burr. Fig. 4 is a detached view, in vertical section, of the oil-chamber (seen in Fig. 1) and its cover.
15 Fig. 5 is a side view of a burr-wheel, showing a burr-disk of my improved construction employed in connection with an old form of securing-nut and an old form of oil-chamber.

Like parts are marked by the same letters
20 in different figures.

My invention consists in making the operative portion of the burr-wheel in one piece, as a disk having wings or flukes cut therefrom and bent or twisted to the angle required
25 for the operations of a knitting-machine, and in the combination, with the upper end of the bushing of the wheel, of an oil reservoir or chamber, from which oil may pass through apertures in the bushing to lubricate the ordinary bearing.

In carrying out my invention I take a circular blank having a central opening, H, and of the desired size of annealed steel and cut into its periphery to suitable depths and at
35 regular spaces, thereby forming the blanks for the wings *h* continuous with the body H' of the disk. These wings after being cut or filed to proper form are then twisted to a certain angle or placed under a metallic die, by which
40 the wings are stamped or pressed into such angular forms as are necessary to adapt them to operate with the needles in the usual manner. I also cast or form an ample oil-reservoir, E, of suitable metal, having threads *e'* on its inner surface at the top, in which is screwed the
45 cap *e*, and also having interior threads, *e''*, in its base to match with the threads *e'*. (Seen on the bushing A in Fig. 3.) The said bushing has a central opening through its entire length,
50 suitable apertures, *a'*, being made to permit

oil to pass from the oil-chamber into the bushing to lubricate the bearing-surfaces. I place upon the shoulder *a* of bushing A the supporting-plate D, and then the burr-disk H', upon which I drop an annular packing, P, which
55 prevents the escape of oil. I then screw the oil-reservoir E into position, as seen in Fig. 1, and pour in the oil to nearly the height of the bushing and above the apertures *a'*, one or
60 more of which are extended to nearly the bottom of the oil-chamber. I then screw down the cap *e* to near the top of the bushing, as seen in Fig. 1, or, as I prefer, on the top of said bushing A, which is thus covered, or the
65 same may be closed with a suitable packing, *i*, to prevent any oil reaching the bearing-surfaces except through the apertures *a'*.

When my improved burr-wheel is placed upon the ordinary bearing-pin, B, a portion of which extending above the oil-apertures is
70 seen in Fig. 1, my device may then be used in the ordinary manner in knitting fabrics.

My burr-disk may be used not only with my improved oil-reservoir, as seen in Fig. 1, but also as seen in Fig. 5, where in place of my
75 oil-reservoir a nut, F, is screwed down upon the bushing to secure the disk H', while from the oil-cup C, secured on the bearing-pin B or its supporting-arm, or lower end of the bushing, the oil lubricates the bearing-surfaces;
80 and it also may be used in place of all the ordinary circular burrs employed in knitting.

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

1. A knitting-burr disk having the periphery thereof cut into divisions of uniform depth
85 and width, and said divisions bent to form wings, substantially as described.

2. An oil-reservoir, E, placed upon the upper end of the apertured bushing, in combination therewith and with the compressible
90 packing P, the disk H', supporting-plate D, and bearing B of a knitting-burr, substantially as described, and for the purpose set forth.

ROBERT W. GORMLY.

Witnesses:

COLE H. DENIS,

CHARLES F. BUTTERWORTH.