

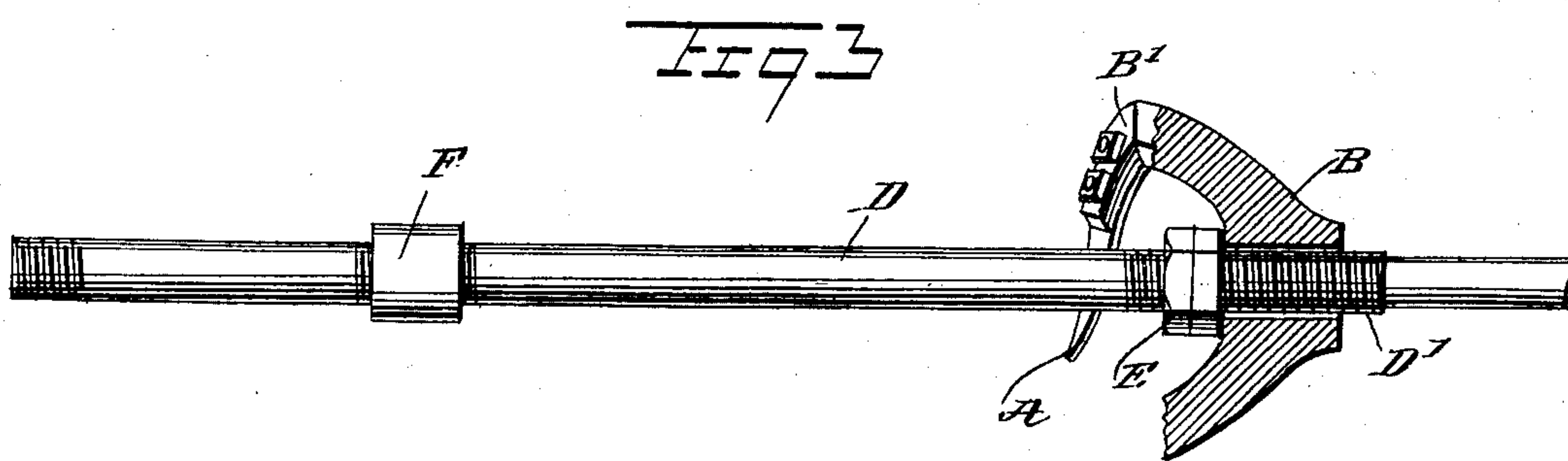
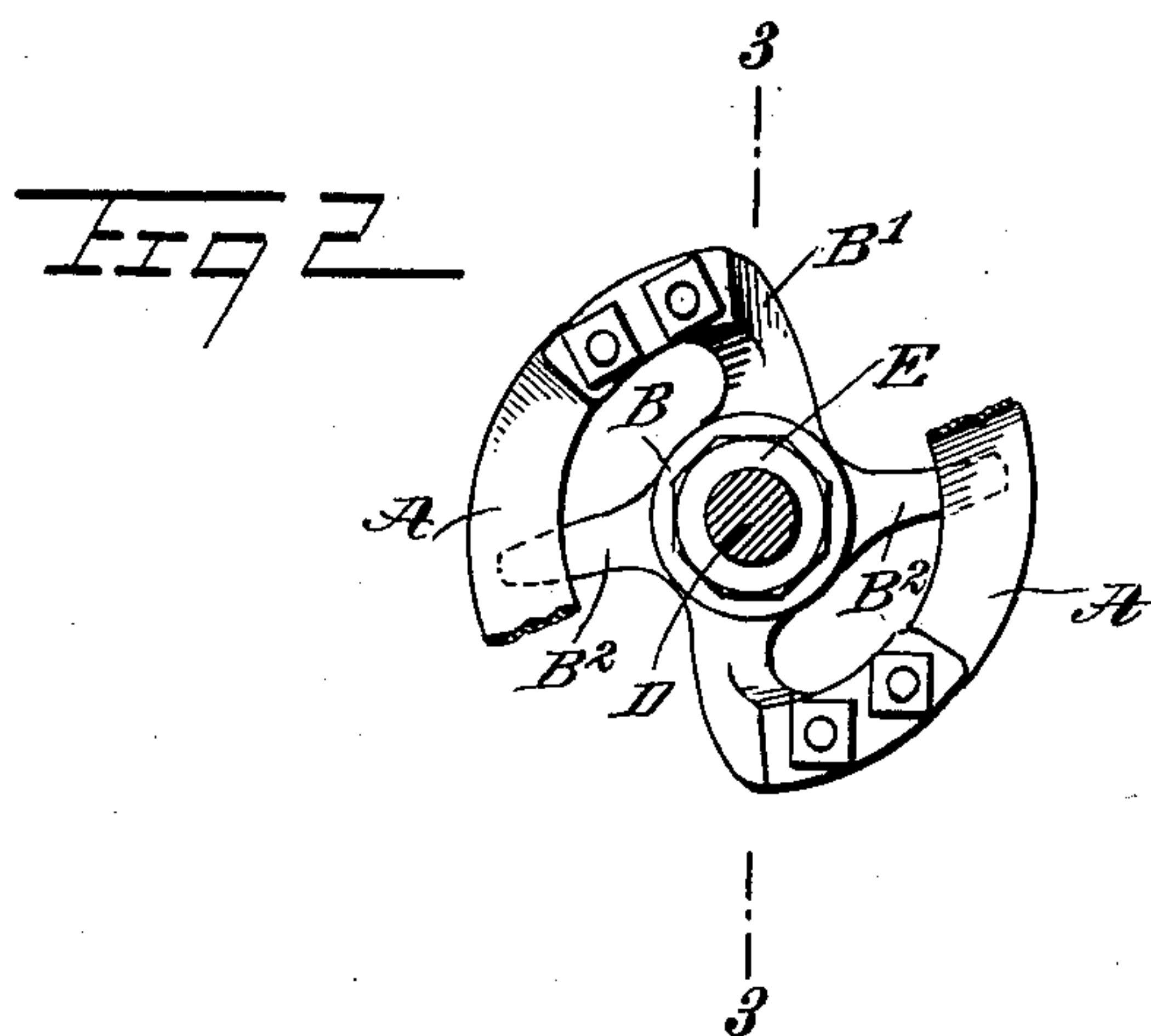
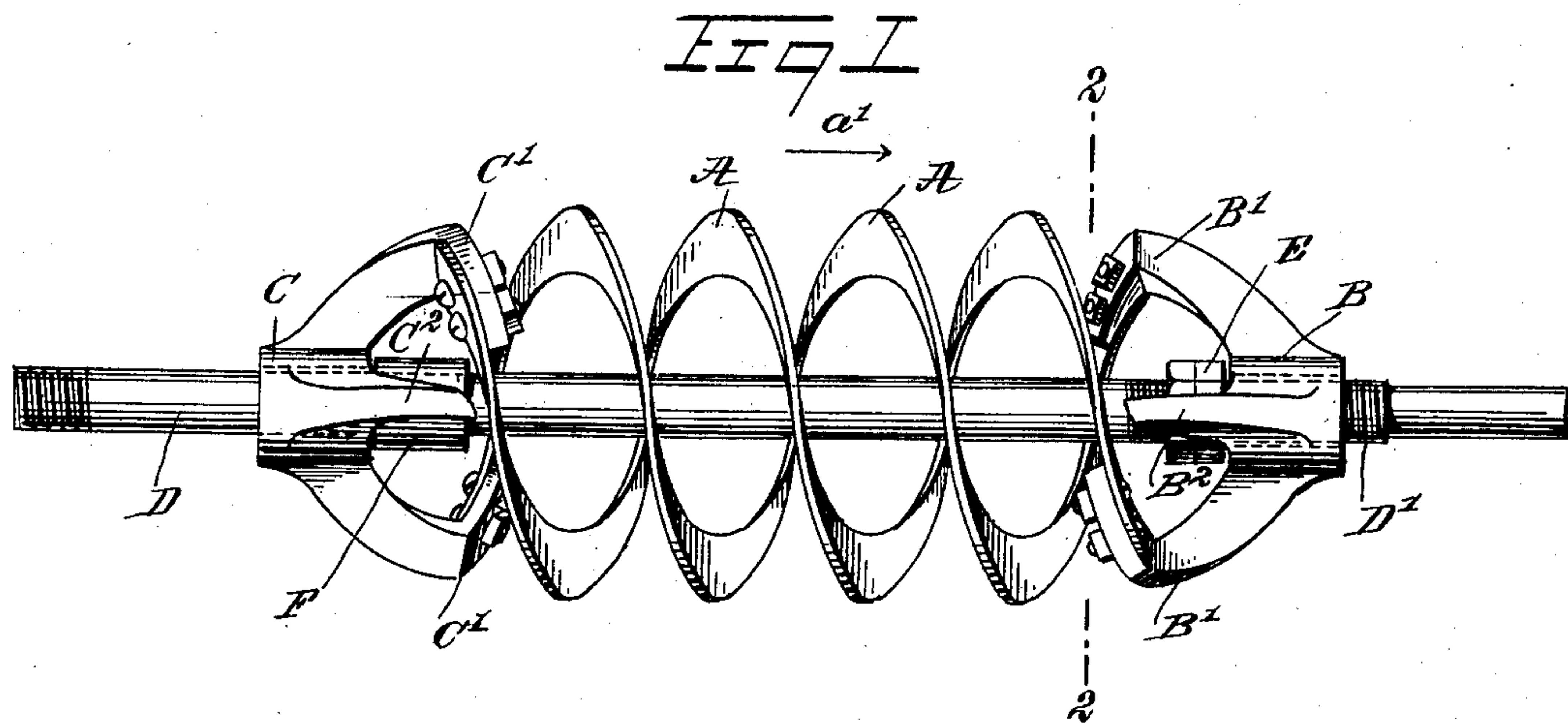
No. 735,846.

PATENTED AUG. 11, 1903.

P. F. VOGT.  
FLUE SCRAPER.

APPLICATION FILED FEB. 26, 1902.

NO MODEL.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

PHILIP FRANK VOGT, OF DAYTON, OHIO.

## FLUE-SCRAPER.

SPECIFICATION forming part of Letters Patent No. 735,846, dated August 11, 1903.

Application filed February 26, 1902. Serial No. 95,704. (No model.)

*To all whom it may concern:*

Be it known that I, PHILIP FRANK VOGT, a citizen of the United States, and a resident of Dayton, in the county of Montgomery and State of Ohio, have invented a new and Improved Flue-Scraper, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved flue-scraper which is simple and durable in construction, very effective in operation, not liable to easily get out of order, and arranged to readily yield for automatic adjustment in the flue and to scrape the flue both on the inward and outward movement of the scraper in the flue.

The invention consists of novel features and parts and combinations of the same, as will be more fully described hereinafter and then pointed out in the claims.

A practical embodiment of the invention is represented in the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of the improvement. Fig. 2 is a transverse section of the same on the line 2 2 of Fig. 1; and Fig. 3 is a longitudinal sectional elevation of one head for the spiral blade, the section being on the line 3 3 of Fig. 2 and the rod being shown in elevation.

The improved flue-scraper consists, essentially, of a scraper-blade made in the form of one, two, or more spirals A, each constructed from a flat piece of steel set edgewise, so that the outer edge forms the scraping edge when the device is used in the flue, as hereinafter more fully described. The ends of the spirals A are secured by rivets, bolts, or other fastening devices to arms B' and C' of heads B and C, mounted to slide loosely on the scraper-rod D, adapted to be taken hold of at one end by the operator for moving the scraper forward and backward in the flue.

The inner ends of the heads B and C normally abut against stops E and F, of which the stop E is in the form of a nut and lock-nut screwing on a threaded portion D' of the rod D, and the other stop F is in the shape of a coupling for fastening adjacent sections of the rod D together, as will be readily understood by reference to Fig. 3. The stop E is

so adjusted on the threaded portion D' that the heads B and C abut against the stops and are held there by the tension of the spirals A. The diameter of the scraper-blade slightly exceeds that of the inner diameter of the flue on which the scraper is used, and the ends of the spirals A are somewhat bent inwardly to permit convenient insertion of the scraper into the flue. Now it will be seen that when the flue-scraper is pushed into the flue—say in the direction of the arrow a'—then the spirals A are pressed, and consequently lengthen out in the inverse direction in which the flue-scraper moves, so that the head B is held firmly against the stop E, while the other head C slides rearwardly on the rod D away from its stop F. When the flue-scraper is drawn backward in the flue—that is, in the inverse direction of the arrow a'—then the scraper-blade lengthens out in the direction of the arrow a'—that is, the head C abuts firmly against its stop F, while the head B slides on the rod D in the inverse direction of the arrow a' and away from its stop E. Now by the arrangement described the scraping edges of the spirals A are in firm contact with the inner surface of the flue, so that on the forward and backward movement of the scraper in the flue the latter is thoroughly scraped and all soot and other matter adhering to the inner surface of the flue are scraped from the same, so that the flue is rendered perfectly clean.

By having the scraper-blade in the form of a spiral or spirals it presents a long scraping edge at the best possible angle to the inner surface of the flue to insure a thorough cleaning of the flue in a comparatively short time.

The heads B and C are provided with guide-arms B<sup>2</sup> and C<sup>2</sup>, arranged midway between the arms B' C', serving to properly guide the scraper into the flue.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A flue-scraper, comprising a scraper-blade in the shape of one or more spirals each constructed of flat spring material set edgewise so that the outer edge forms the scraping edge, heads provided with arms extending in opposite directions and to which the ends of the blade are secured, a rod on which



said heads are mounted to slide loosely, and stops on the said rod and against which the inner ends of the heads are normally held by the resiliency of the spiral blade, as set forth.

5 2. A flue-scrapers, comprising a scraper-blade in the shape of one or more spirals, normally of a diameter exceeding the inside diameter of the flue on which the scraper is to be used, heads provided with arms having  
10 their ends extending in opposite directions and on which the ends of the spiral scraper-blade are secured, and a rod on which both of the said heads are mounted to slide loosely, the rod having stops for the inner ends of the  
15 said heads, one of the stops being adjustable lengthwise on the rod, the heads being movably held in contact with the stops solely by the resiliency of the spirals, as set forth.

20 3. A flue-scrapers, comprising a scraper-blade in the shape of one or more spirals, normally of a diameter exceeding the inside diameter of the flue on which the scraper is to be used, heads having arms to which the ends of the spiral scraper-blade are secured, a rod  
25 on which the heads are mounted to slide loosely, the rod having stops for the inner ends of the said heads, one of the stops being adjustable lengthwise on the rod, and guide-arms on the said heads and arranged midway  
30 between the arms to which the ends of the scraper-blade are secured, as set forth.

4. A flue-scrapers, comprising a rod, heads

mounted to slide loosely on the rod and having inwardly-extending arms, the ends of said arms extending in opposite directions, a  
35 scraper-blade in the shape of one or more spirals, normally of a diameter exceeding the inside diameter of the flue on which the scraper is to be used, the ends of the spirals being secured to the oppositely-extending  
40 ends of the arms of the heads, a fixed stop on the said rod for the inner end of one of the heads, and an adjustable stop for the inner end of the other head, comprising a nut and  
45 a lock-nut screwing on a threaded portion of the rod, the said heads being normally held against said stops by the resiliency of the blade, as set forth.

5. A flue-scrapers, comprising a rod, heads mounted to slide loosely on the rod and having  
50 inwardly-extending arms, the ends of the arms extending in opposite directions and scraper-blades made in spiral form and having their ends secured to the oppositely-extending ends of the arms of the head, as set  
55 forth.

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

PHILIP FRANK VOGT.

Witnesses:

DANIEL MEVINS,  
CLARENCE E. RAMBY.