

(No Model.)

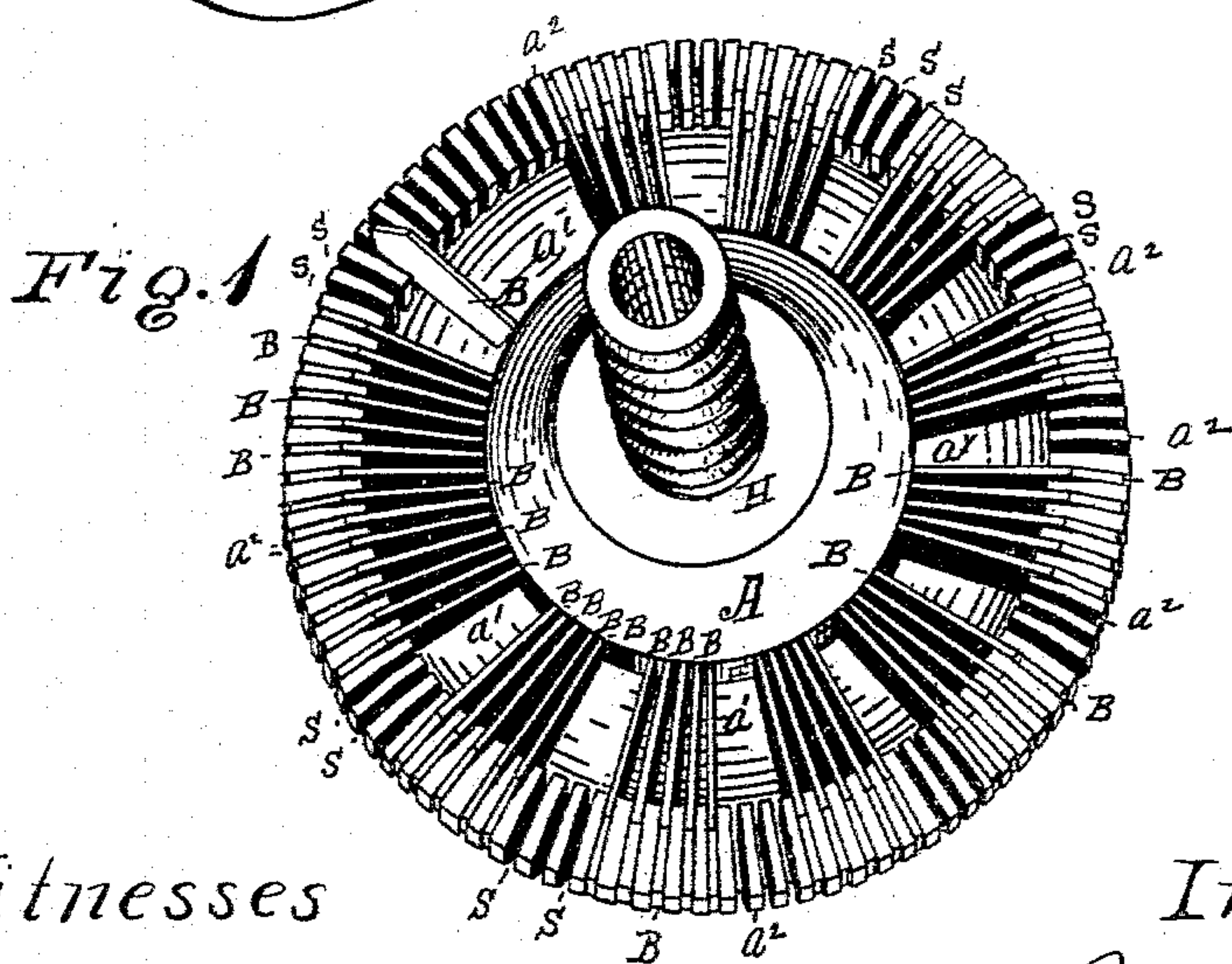
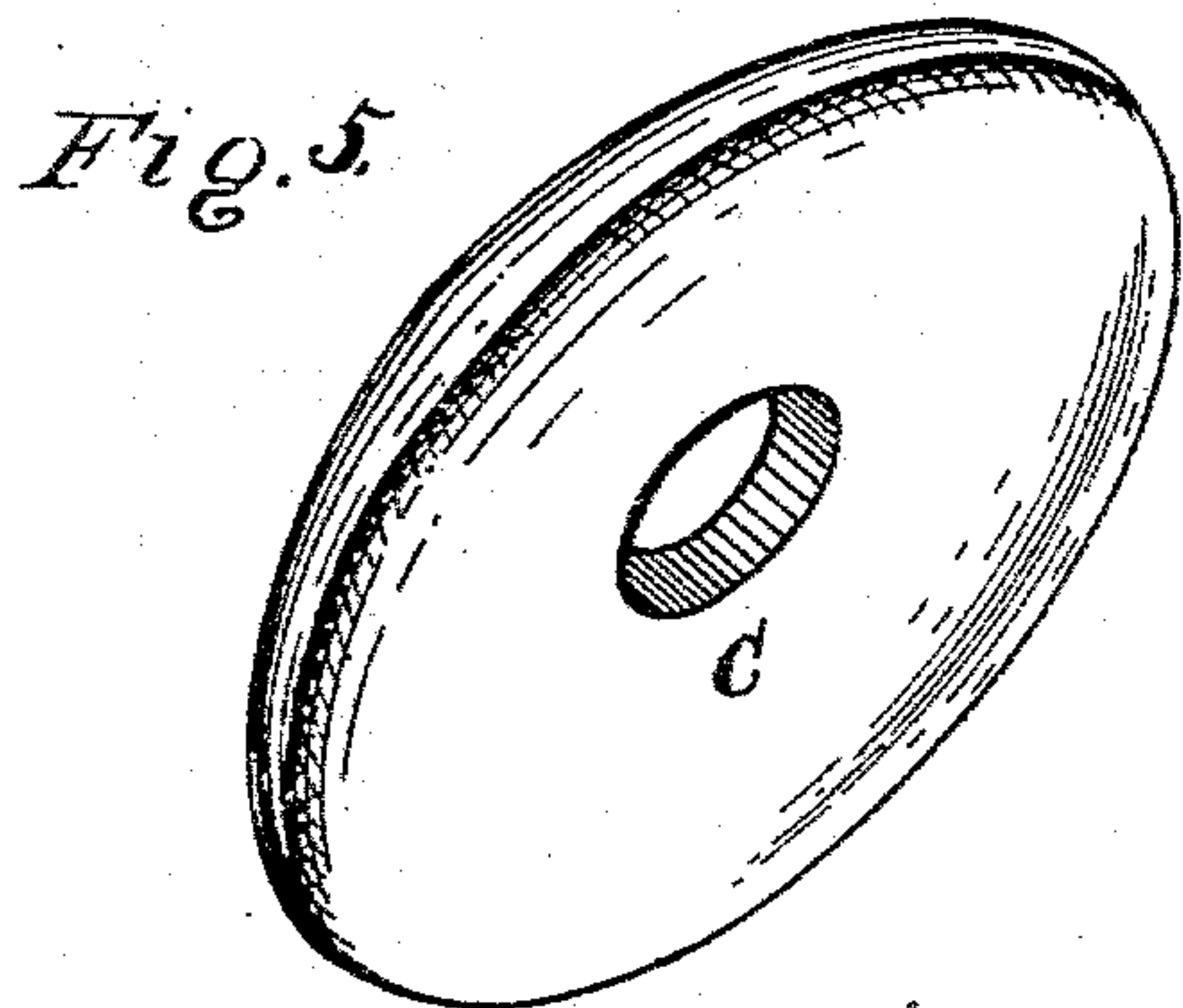
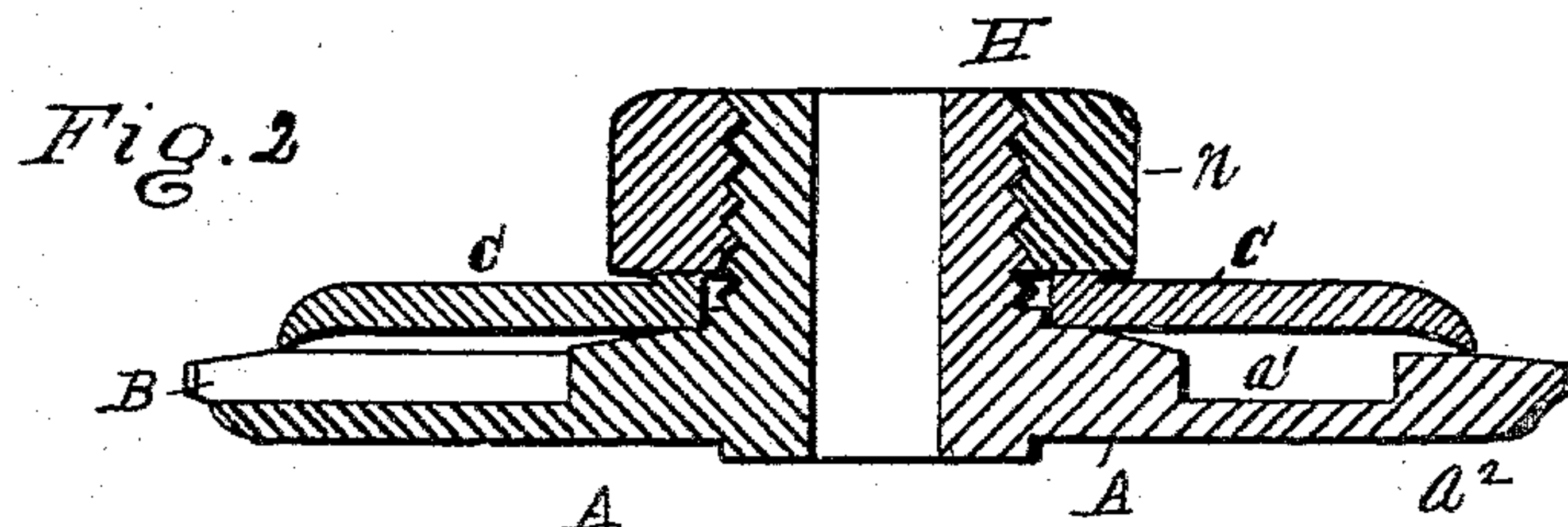
2 Sheets—Sheet 1.

P. S. KINSEY.

PRESSER WHEEL FOR KNITTING MACHINES.

No. 356,843.

Patented Feb. 1, 1887.



*Fig. 3*



Witnesses

Stanley M. Holden.

Charles S. Brintnall

Inventor

Peter S. Kinsey

by W. H. Hagan his atty

(No Model.)

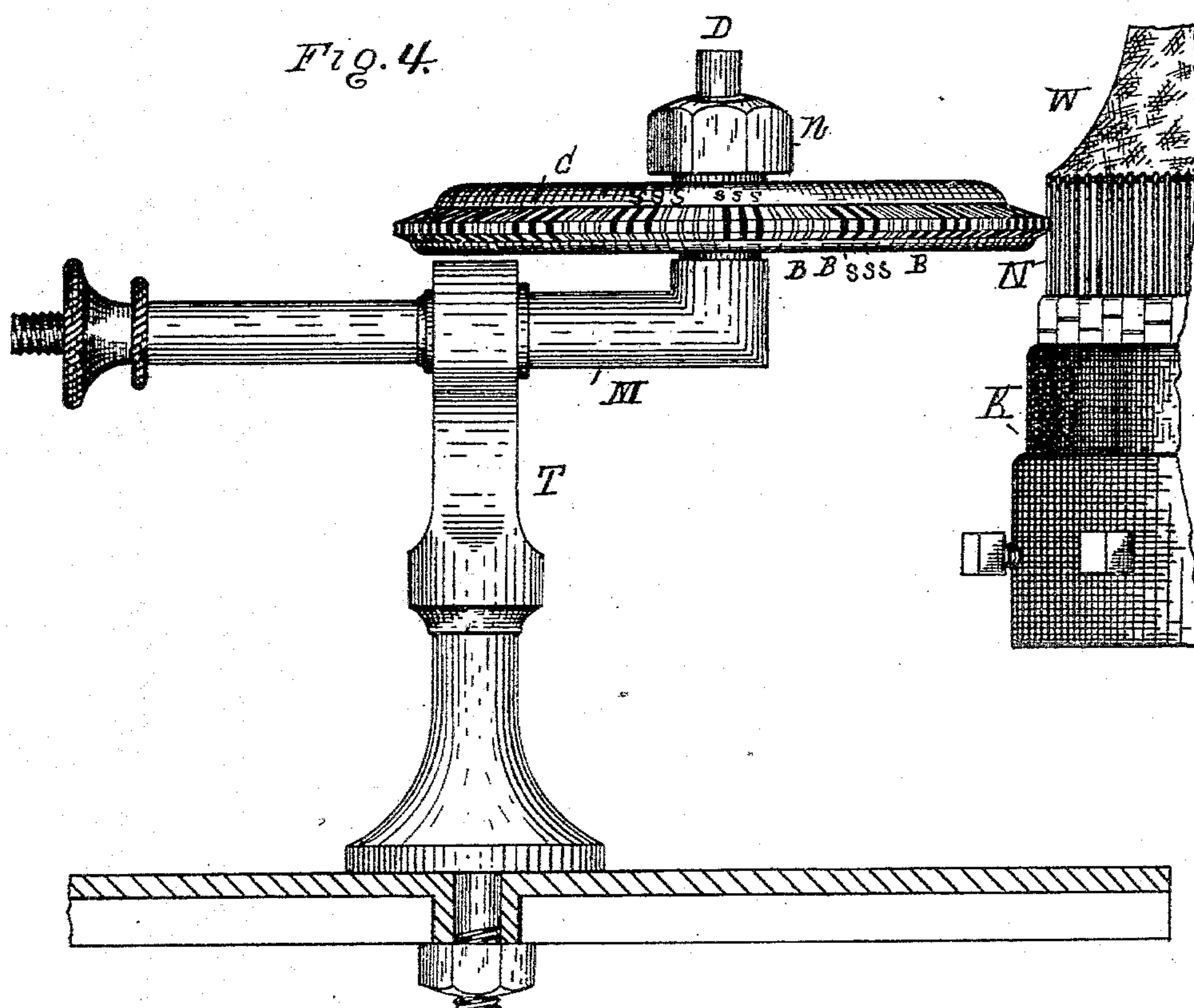
2 Sheets—Sheet 2.

P. S. KINSEY.

PRESSER WHEEL FOR KNITTING MACHINES.

No. 356,843.

Patented Feb. 1, 1887.



Witnesses:

Stanley M. Holden.

Charles S. Brintall

Inventor

Peter J. Kinsey

by W. E. Tugan his atty



# UNITED STATES PATENT OFFICE.

PETER S. KINSEY, OF NEWARK, NEW JERSEY.

## PRESSER-WHEEL FOR KNITTING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 356,843, dated February 1, 1887.

Application filed March 18, 1884. Serial No. 124,676. (No model.)

*To all whom it may concern:*

Be it known that I, PETER S. KINSEY, of the city of Newark, county of Essex, State of New Jersey, have invented a new and useful  
5 Improvement in Presser-Wheels for Knitting-Machines, of which the following is a specification.

My invention consists in a presser-wheel for  
10 knitting-machines, formed with a multiplicity of radially-arranged slots in the rim or periphery of the wheel and provided with adjustable blades fitted to the slots and adapted to close the beards of the needles and effect the  
15 stitch, or by adjustment to pass the beards without effecting the stitch.

By my improvement the presser-wheel can be operated in the ordinary manner in its usual bearings and without a change of position in its axial rotation with relation to the needles,  
20 and as constructed, by removing some of its blades, so that in its rotation it will skip some of the needle-beards, and by retaining some of the blades in place, so that it will engage to close the beards of other of the needles, my  
25 improved presser-wheel does all the work of the older devices without the aid of any additional mechanism to operate the presser-wheel.

Accompanying this specification and forming a part of it are two plates of drawings containing five figures illustrating my invention,  
30 with the same designation of its parts by letter-reference used in all of them.

Of these illustrations, Figure 1 shows a perspective of my improved presser-wheel with the cap which holds the blades in place removed. Fig. 2 shows a central vertical section taken through the body part of the wheel, the cap, and nut, which secures the blades in place within the body part. Fig. 3 shows one  
40 of the blades as removed from the device. Fig. 4 illustrates my improved presser-wheel as applied to a knitting-machine, and Fig. 5 shows the cap as removed from the wheel.

The several parts of the device thus illustrated are designated by letters of reference,  
45 and the function of the parts is described as follows:

The letter A indicates the body part of the presser-wheel, which is hollowed out between  
50 its center shaft-passage and its outer rim, as

indicated at  $a'$ , so as to leave a thicker part,  $a^2$ , at the rim, and extending inwardly therefrom.

The letters S indicate slots that are formed in the outer edge of the body part at right angles to the face of the rim, and which slots are  
55 from the outer edge of the wheel or body part radially extended inwardly toward the vertical bearing of the latter, the said slots, where thus radially extended inwardly, being formed  
60 in the thicker portion of the body part, indicated at  $a^2$ . As thus produced, that part of these slots which are in the rim of the wheel are arranged therein on a line that is parallel to the axis of the wheel, and they are made  
65 wide enough for the passing needles of the knitting-machine cylinder to enter therein and pass out therefrom without having the needle-beards pressed in to complete a stitch.

The letters B indicate blades that are adapted  
70 to fit into the slots so as to fill the latter, but which blades are so arranged when within the slots as not to pass outwardly beyond the rim of the body part, the outer ends of the blades, with the parts of the rim between the slots,  
75 forming a continuous surface, like an ordinary presser-wheel.

The letter C designates a cap that is made to go on over the inserted blades, and to be secured in such position to retain the latter by  
80 the nut  $n$ , which is made to thread onto the hub H of the wheel, the latter being provided with an opening for the shaft D.

The letter T designates the standard which supports the arm M, in which the shaft D of  
85 the presser-wheel is mounted.

The letter N designates the needles of the knitting-machine, K the cylinder of the latter, and W the web or fabric formed by the needles.

Thus made and applied, the blades can be  
90 removed from, to open, or applied to, to close, any of the radial slots or openings formed in the periphery and upper face of the wheel, and when removed from the slots of said wheel the latter will pass the needles without  
95 closing their beards, and where the blades are applied the wheel will press in the needles' beards for slipping off the stitches. A presser-wheel thus made is adapted to the use of a  
100 great many changes and combinations for the



production of figured knitting from the various positions in which the blades can be placed and be changed as desired. The function of the slots or openings radially produced in the periphery and upper face of the presser-wheel being to allow the passing needles to mesh into the periphery of the wheel while passing, without having the wheel press in the beards of the needles, any form of slot or opening that will do this may be used, and the function of the applied blades being to close up such slots or openings, any form of blade that can be so applied may be used, provided that the outer ends of said blades when applied to the slots shall extend to the outer edge of the wheel, so as to come in contact with the passing needle-beards to press them in, but which outer ends of the blades shall not extend beyond the wheel-rim.

I am well aware that a dividing-wheel for a "weft-thread loom" has been used, which contained radially-arranged dividing-plates and intermediate spaces for the insertion of "adjustable notched teeth," so constructed and arranged "that any number of needles can be sprung out of line." This older device referred to differed from mine, in the fact that in the latter the spaces or slots arranged in the rim of the wheel receive the needles, so as not to press in the beards thereof; and in this older construction the notches which received the needles were formed in adjustable teeth that were inserted within the radial slots or spaces. The only adjustable parts in my device used in connection with the radial slots are the blades, and these are employed to fill up the radial spaces where applied, so that the wheel will press in the beards thereat, the function of the blades in my device when inserted within

the slots being just the reverse of the adjustable notched teeth of the other mechanism.

I am also aware that knitting-machine burrs have been made with slots obliquely formed in the wheel-rim, to receive burr-blades that projected beyond the latter, for a functional purpose.

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

1. The combination, with a presser-wheel body provided with radially-arranged slots which in its peripheral face are in line with its axis and are therefrom extended inwardly in its upper face, of blades adapted to be applied to said slots to close the same, and means for clamping said blades in said slots, whereby the said blades may be attached to or detached from said wheel, substantially as and for the purposes set forth.

2. The combination of the wheel-body A, provided with slots S, the blades B, the cap C, the nut *n*, and the hub H, said parts being constructed and arranged to operate substantially in the manner as and for the purposes set forth.

3. The combination of the body A, formed with a threaded hub, H, hollowed-out part *a'*, and thicker peripheral rim *a''*, provided with radial slots S, the bottoms of which are on a line with the floor of the hollowed-out portion *a'*, with the adjustable blades B, fitted in said radial slots, the cap C, set over the blades, and a retaining-nut, *n*, substantially as described, and for the purpose stated.

PETER S. KINSEY.

Witnesses:

SAML. MORROW, Jr.,  
J. A. BEECHER.