

(Model.)

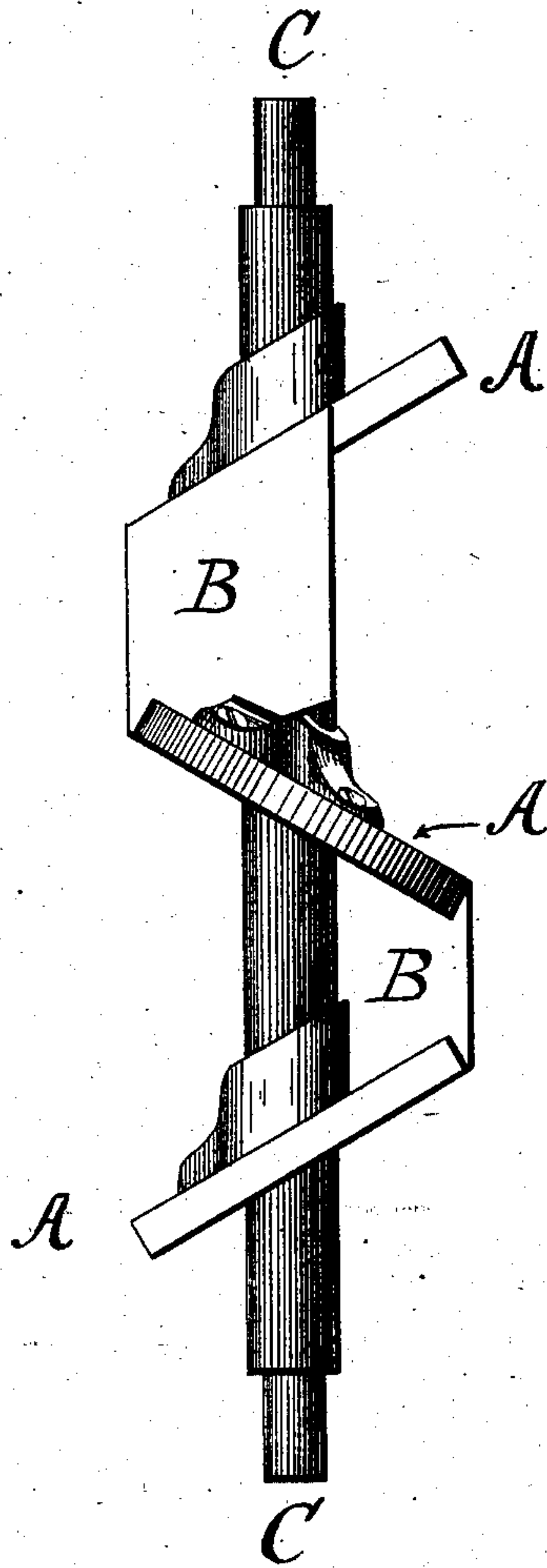
2 Sheets—Sheet 1.

L. PATTERSON.  
HELICAL FLANGED WHEEL MOTOR.

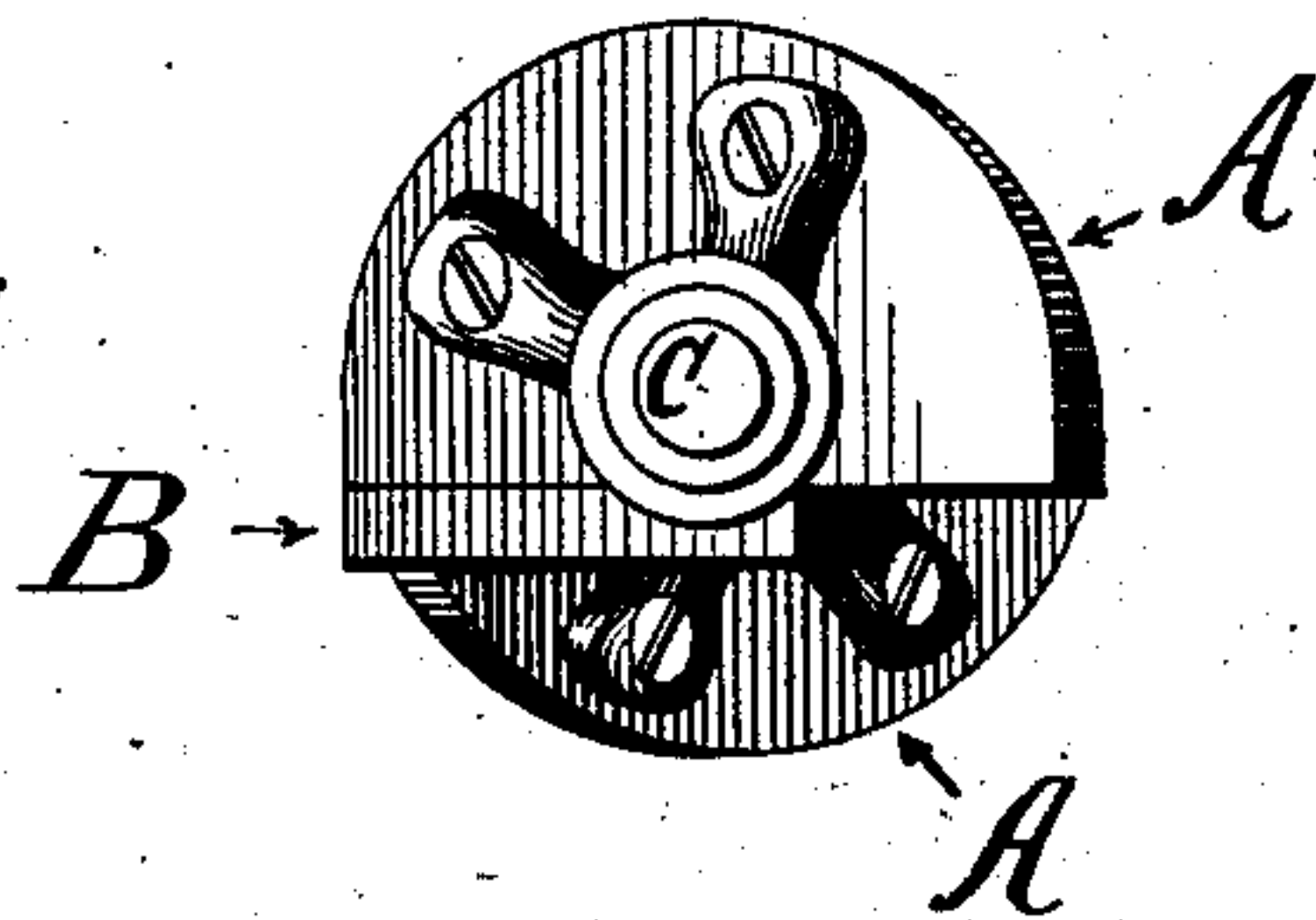
No. 289,931.

Patented Dec. 11, 1883.

*Fig. 2.*



*Fig. 1.*



Witnesses.

P. B. de Schweinitz.  
R. Crooker 3<sup>d</sup>

Inventor.

Louis Patterson

(Model.)

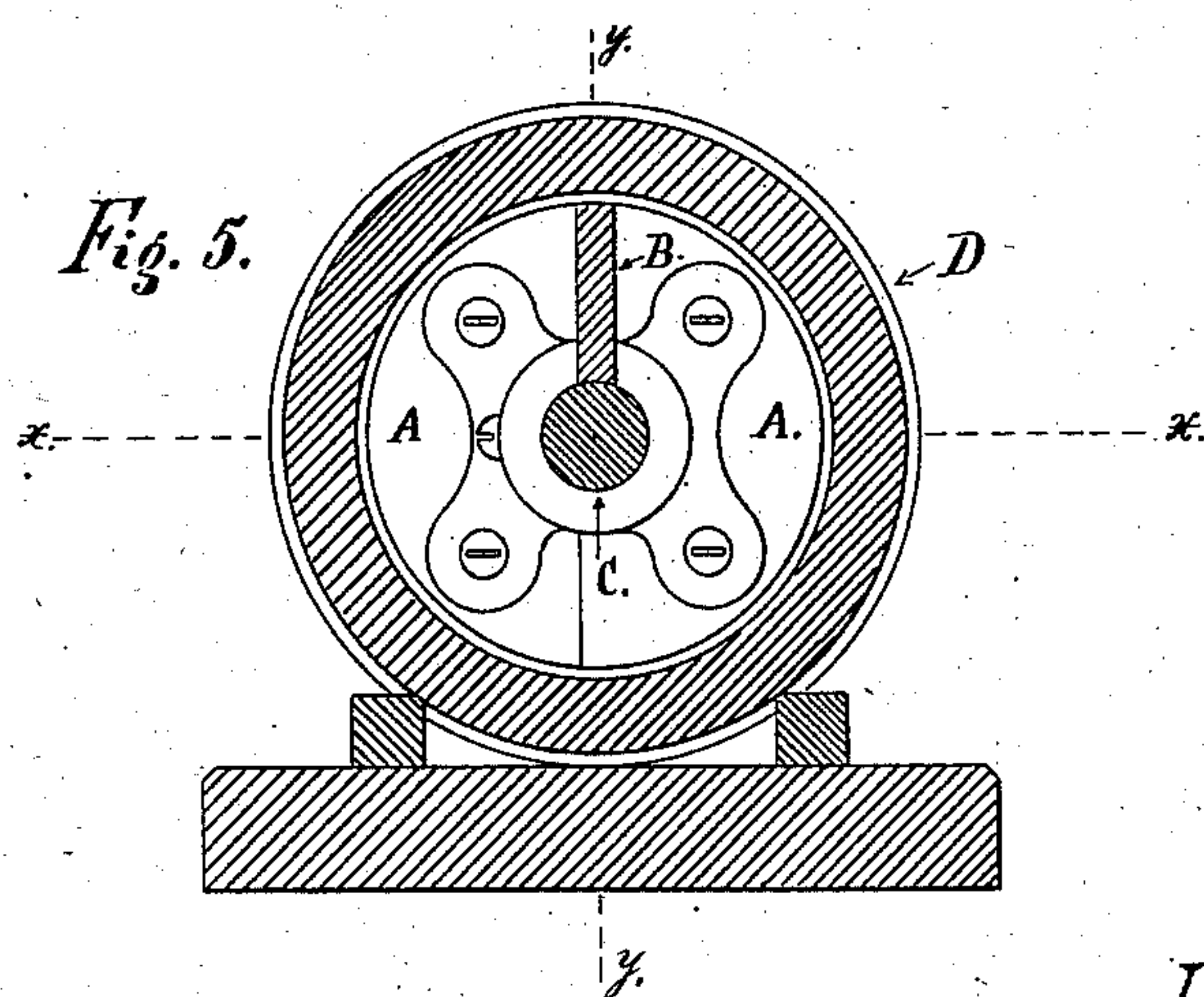
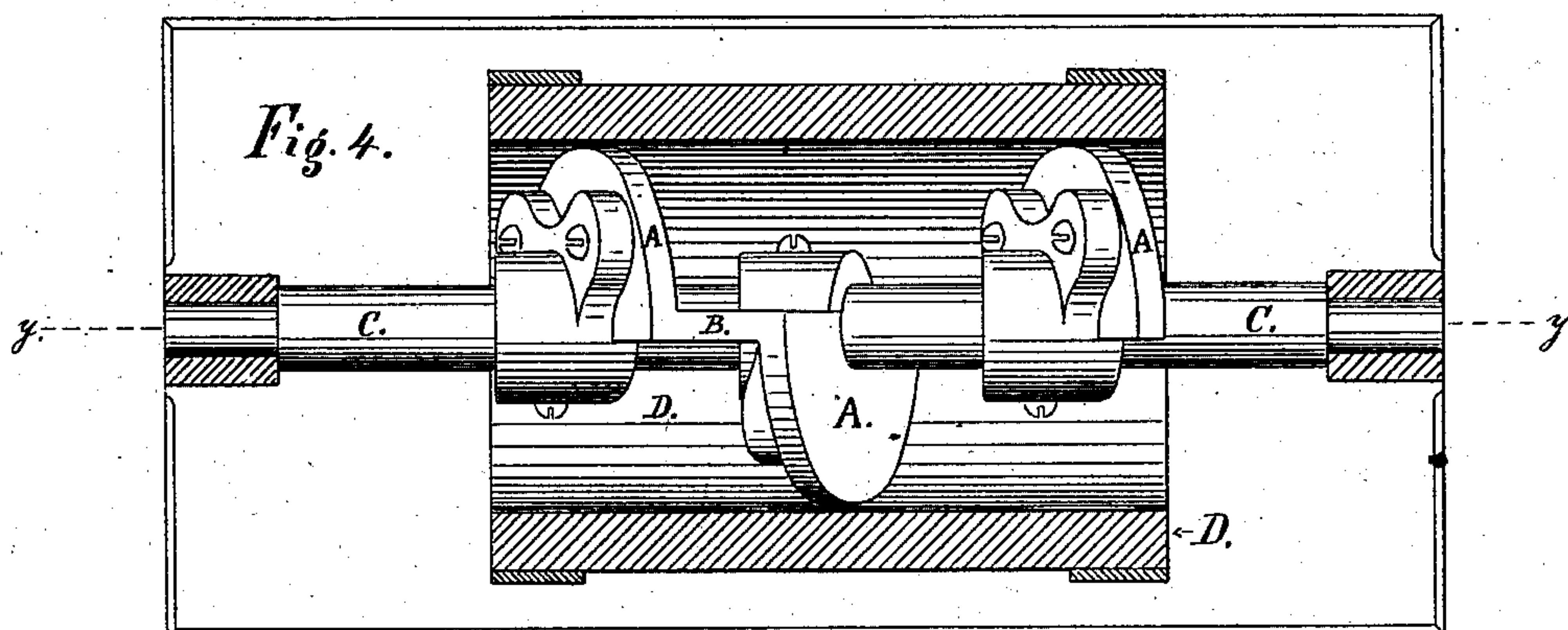
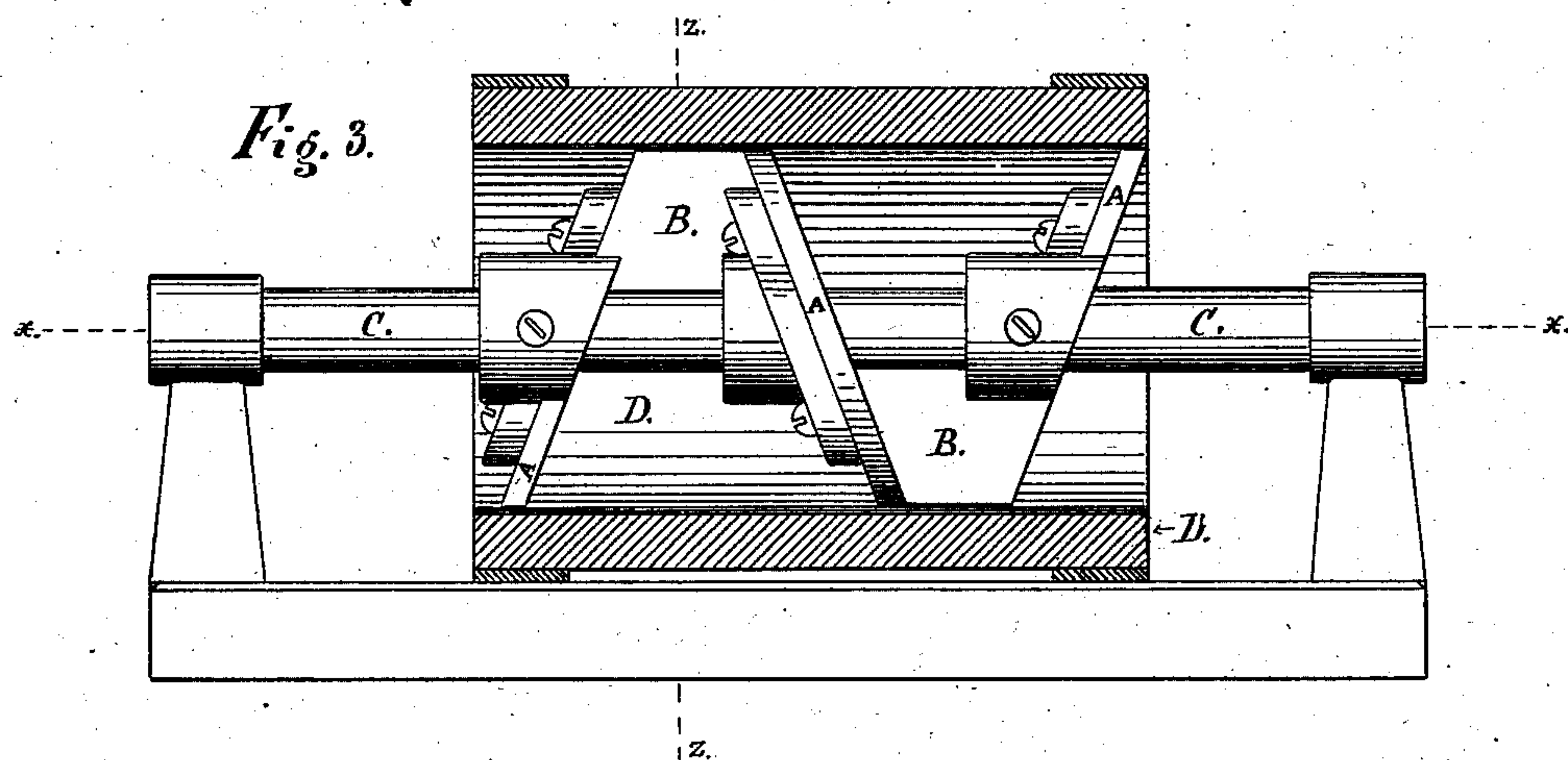
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HELICAL FLANGED WHEEL MOTOR.

No. 289,931.

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Witnesses:  
P. B. de Schweinitz.  
Wm. Mayer.

Inventor:  
Louis Patterson



# UNITED STATES PATENT OFFICE.

LOUIS PATTERSON, OF SOUTH PUEBLO, COLORADO.

## HELICAL FLANGED-WHEEL MOTOR.

SPECIFICATION forming part of Letters Patent No. 289,931, dated December 11, 1883.

Application filed June 9, 1883. (Model.)

*To all whom it may concern:*

Be it known that I, LOUIS PATTERSON, of South Pueblo, in the county of Pueblo and State of Colorado, have invented a new and  
5 useful Improvement in Helical Flanged-Wheel Motors; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed  
10 drawings, making a part of this specification, and to the letters and figures thereon.

This invention has relation to improvements in helical flanged wheels using steam or water or any other fluid as motive power.

15 The object of my invention is to devise a wheel which will use either steam or water or any other fluid as a motive power, and which will also utilize the expansion of the steam as it passes through the wheel.

20 The invention consists in the construction and novel arrangement of three or more adjustable inclined flanges, made to overlap each other half the diameter of the shaft or more, each independent of the other, yet all working  
25 in unison on a common rotating shaft, in combination with suitable thin plates made to span the distance between the flanges at their nearest points, forming, with the flanges, a continuous surface, resembling a helical surface, thereby forcing the steam or other fluid to pass  
30 through the larger spaces between the flanges. The wheel is to be inclosed in a tube or cylinder.

In the accompanying drawings, in which similar letters of reference indicate like parts,  
35 Figure 1 is an end view of the device embodying my invention, and Fig. 2 is a side or longitudinal view of the same. Fig. 3 is a longitudinal section of the casing D along the line  
40 4 4 and a side view of the flanged wheel. Fig. 4 is a longitudinal section of the casing D

along the line  $x x$  and a side view of the flanged wheel in a position at right angles to the one shown in Figs. 2 and 3. Fig. 5 is a transverse section of the wheel and casing  
45 along the line  $z z$ .

The letters A A A designate the inclined flanges; B B, the thin plates connecting them, and C C the shaft. Fig. 1 shows the manner  
50 in which the flanges overlap each other.

The operation of the device is as follows: 5c  
The steam or other fluid, beating against the inclined flanges, rebounds against the plates, thus giving greater rotary motion and obtaining the full power and expansion of the steam while passing through the wheel. When wa- 55  
ter or any other liquid is used, the plates B B may be dispensed with. The overlapping of the flanges presents a greater surface for the steam or water to beat against, and also prevents their free flow through the wheel. 60

What I claim is—

1. The combination of three or more adjustable inclined flanges placed or strung on a shaft, said flanges made to overlap each other half the diameter of the shaft, or more, if de- 65  
sired, substantially as described.

2. The combination of three or more adjustable inclined flanges, A, on a common shaft, C, with thin plates B connecting said inclined flanges at their nearest points, the whole in- 70  
closed in a cylindrical casing or tube, D, substantially as described, and for the purpose specified.

In testimony that I claim the foregoing I have hereunto set my hand this 14th day of 75  
May, 1883.

LOUIS PATTERSON.

Witnesses:

P. B. DE SCHWEINITZ,  
R. CROOKER, 3d.