

J. E. BRAUNSDORF.
Spinning-Spindle and Mechanism for Driving the Same.

No. 214,355.

Patented April 15, 1879.

Fig. 1.

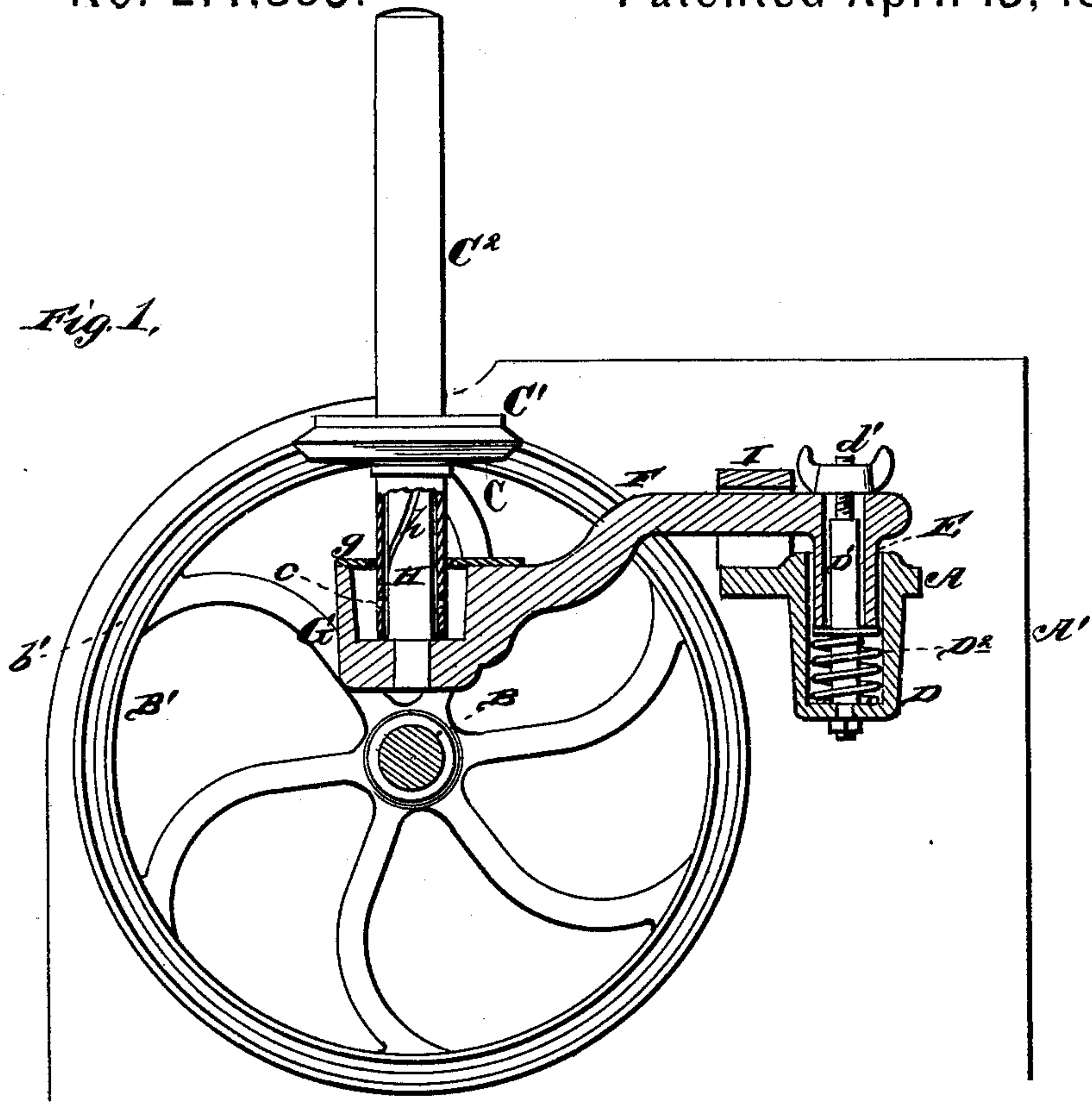


Fig. 2.

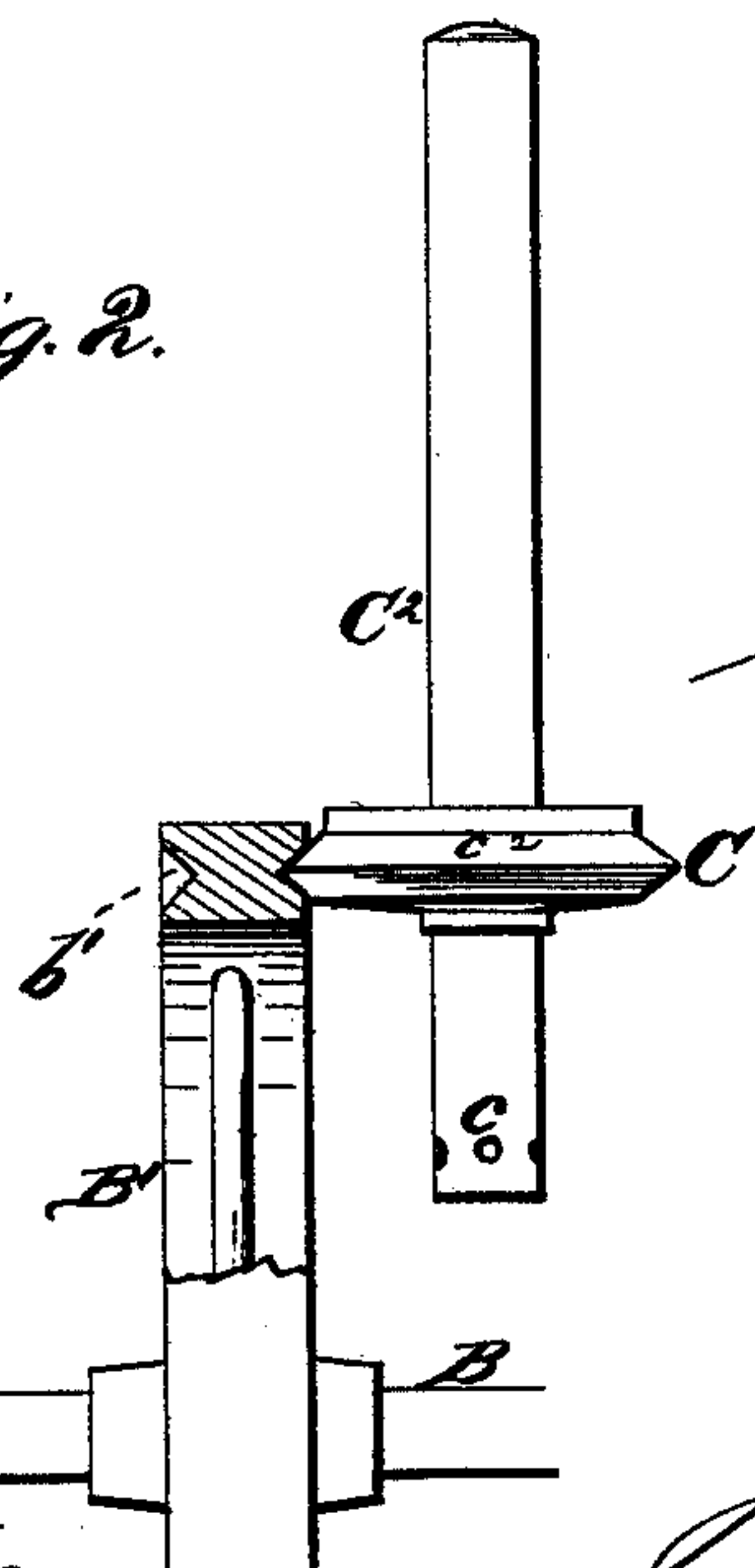
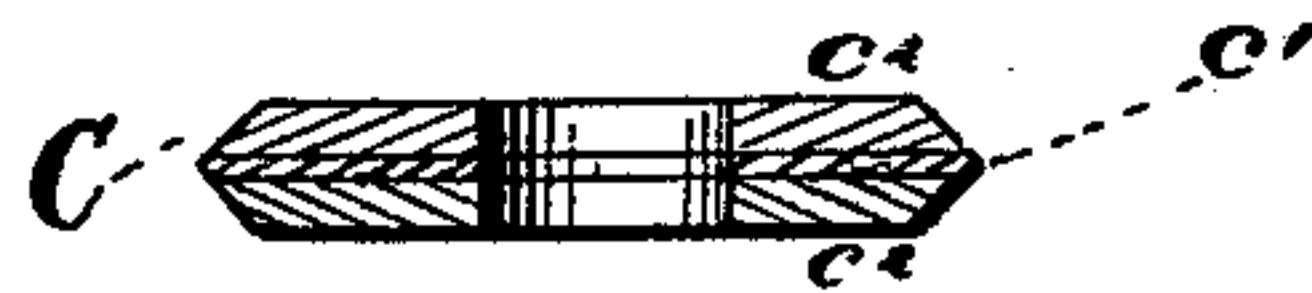
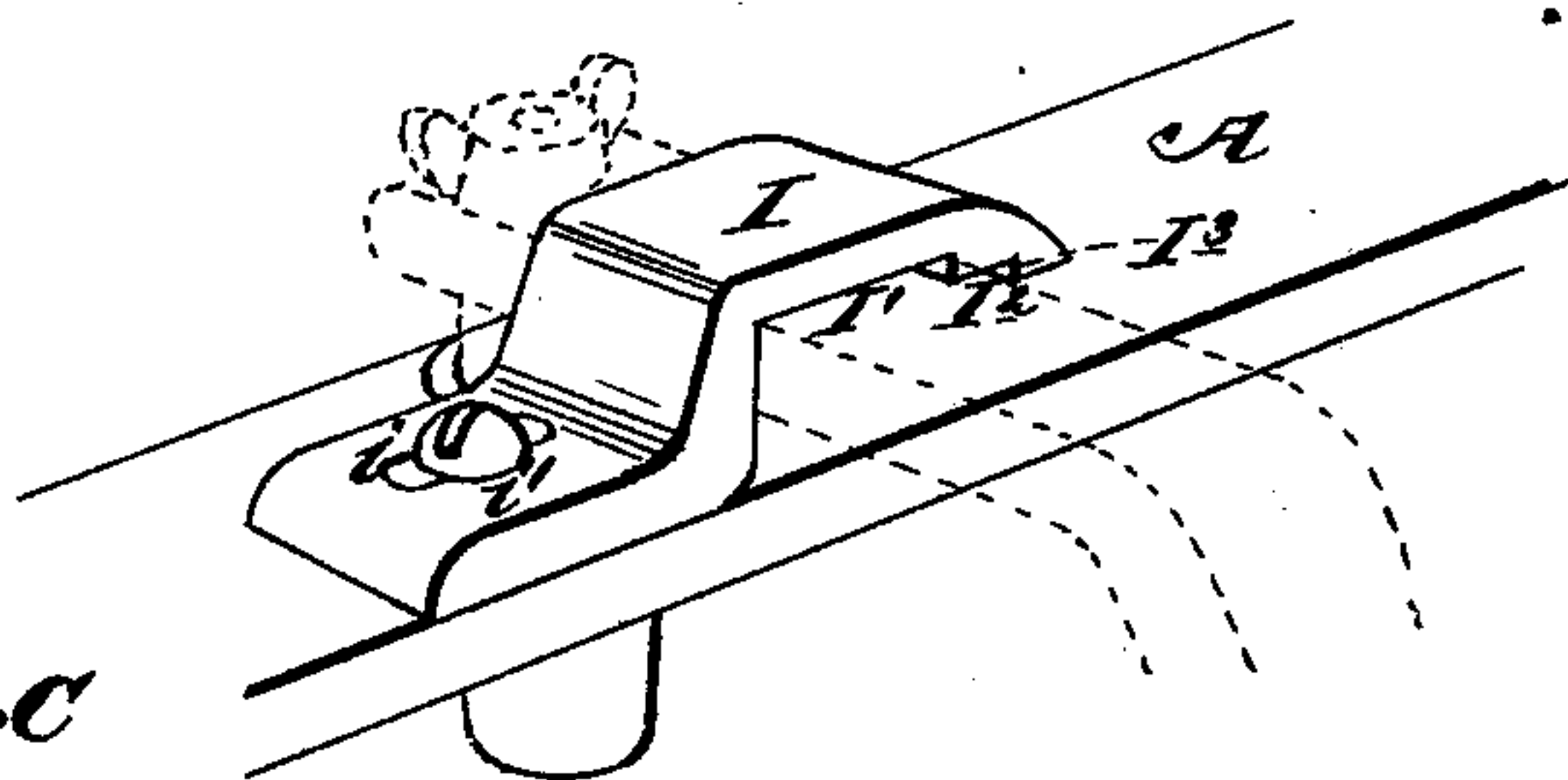


Fig. 3.



WITNESSES
Robert Emmett.
H. Clay Smith.

INVENTOR,
Julius E. Braunsdorf.
By *Julius E. Braunsdorf.*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

JULIUS E. BRAUNSDORF, OF PEARL RIVER, NEW YORK.

IMPROVEMENT IN SPINNING-SPINDLES AND MECHANISMS FOR DRIVING THE SAME.

Specification forming part of Letters Patent No. **214,355**, dated April 15, 1879; application filed October 19, 1878.

To all whom it may concern:

Be it known that I, JULIUS E. BRAUNSDORF, of Pearl River, in the county of Rockland and State of New York, have invented a new and valuable Improvement in Spinning-Spindles and Mechanism for Driving the Same; 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 drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 is a transverse section of part of my spinning-spindle and the parts connected therewith; and Figs. 2 and 3 are detail views of the same, some of the parts being in section.

My invention relates to spinning-spindles and mechanism for driving the same; and the novelty consists in the construction and arrangement of parts, as will be more fully hereinafter set forth, and pointed out in the claims.

I employ a dead-spindle with a live-spindle, the former of which is driven into and made rigid with a movable adjustable bracket, the point of attachment being at one end in a cup, which serves as an oil-cup, having a suitable cover. The dead-spindle has two spiral grooves running in opposite directions, adapted to convey the lubricant up and down over the bearing-surfaces.

A descending tube upon the forward end of the bracket encircles a shaft having a screw-threaded end, and operates in a cup rigid with and beneath the rail and upon a spring which exerts a constant upward force on the bracket-tube.

A latch having a recess, a lip, and a projection serves to bear down upon the bracket-arm against the force of the spring, and a nut at one end of said bracket-arm working on a screw-threaded shaft affords adjustability.

When the live-spindle is in operation the bracket-arm rests in the recess of the latch, and when out of operation it is pressed downward and to one side until said bracket-arm bears upon the lip of the latch and against the projection.

The driving-wheel is formed with a V-shaped recess circumferentially upon its vertical surface or side, which is adapted to receive a pul-

ley of corresponding form, which pulley or pinion is made of two strips of leather and an intervening layer of wood or other suitable material having a comparatively non-flexible nature.

This peculiar form of friction-surface tends to hold the live-spindle up from the bottom of the oil-cup, and avoids friction there.

The live-spindle is perforated at that portion which enters the oil-cup below the cover to allow the ingress of oil.

Referring to the drawings, A represents the bracket-rail, secured to suitable end frames or standards A', in which is journaled the driving-shaft B, carrying driving-wheels B'. A circumferential V-shaped recess, b', in the driving-wheel B' receives a pinion, C, of corresponding form on the collar C¹ of the live-spindle C², which is provided with perforations c c, as is shown.

To adapt the pinion C to retain its peculiar form, I construct it of two layers of leather, c² c², and an intervening one, c¹, of wood or its equivalent. D represents a cup, rigid with the bracket-rail and beneath the same, and it carries an upright shaft, D¹, and contains a coil-spring, D². The upright shaft D¹ has a screw-threaded end at d', and it is adapted to be embraced by the bracket-tube E, which rests upon the spring.

The bracket-tube E is a portion of an adjustable movable bracket-arm, F, having also at the other end an oil-cup, G, with cover g, through which cover operates the live-spindle C² around the dead-spindle H, which is provided with the reverse spiral grooves h.

A latch, I, having an elongated slot, i, at one end to receive a screw-bolt, i', is provided with a recess, I¹, a lip, I², and a shoulder, I³. This latch is adjustably secured to the rail, and, embracing the bracket-arm, serves to force the same against the force of the spring, and to hold the pinion in or out of connection with the driving-wheel, at will, by tightening or loosening the nut on the shaft D¹ and moving the bracket-arm to one side or the other.

The pressure of the pinions may, by my device, be regulated, and the spindle may readily be thrown out of gear by loosening the nut and turning the bracket-arm carrying the pinion away from the driving-wheel B'.

The V-shaped recess may be placed on opposite surfaces of the wheel, and two spindles operated by one wheel.

I have another patent for improvements in an analogous device, application filed on the 21st of September, 1878; but none of the features shown and described in that patent are laid claim to in this one.

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

1. The movable adjustable bracket-arm F, having the oil-cup G *g* and dead-spindle H, and means for supporting said bracket-arm, in combination with the live-spindle C², having pinion C thereon, and the grooved driving-wheel B' *b'*, as and for the purpose set forth.

2. The driving-wheel B', having the two circumferential V-shaped grooves *b'*, in combination with the two correspondingly-shaped pinions C upon two live-spindles, C², and their supporting mechanism, as set forth.

3. The movable adjustable bracket-arm F, provided with the oil-cup G *g*, dead-spindle H, sleeve E, and means for supporting said arm, and the live-spindle C², having pinion C, in combination with the grooved wheel B' *b'*, and the cup D, provided with the spring D² and shaft D¹, said cup receiving the sleeve E on the bracket-arm F, substantially as and for the purposes set forth.

4. The pinion C, formed of two layers, *c*² *c*², of leather and an intervening layer of wood, *c*¹, or other equivalent material, substantially as set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JULIUS E. BRAUNSDORF.

Witnesses:

JOHN H. BRAUNSDORF,
JAMES SEVERN.