

G. C. MATHERS.
Curtain-Fixture.

No. 213,917.

Patented April 1, 1879.

Fig. 2.

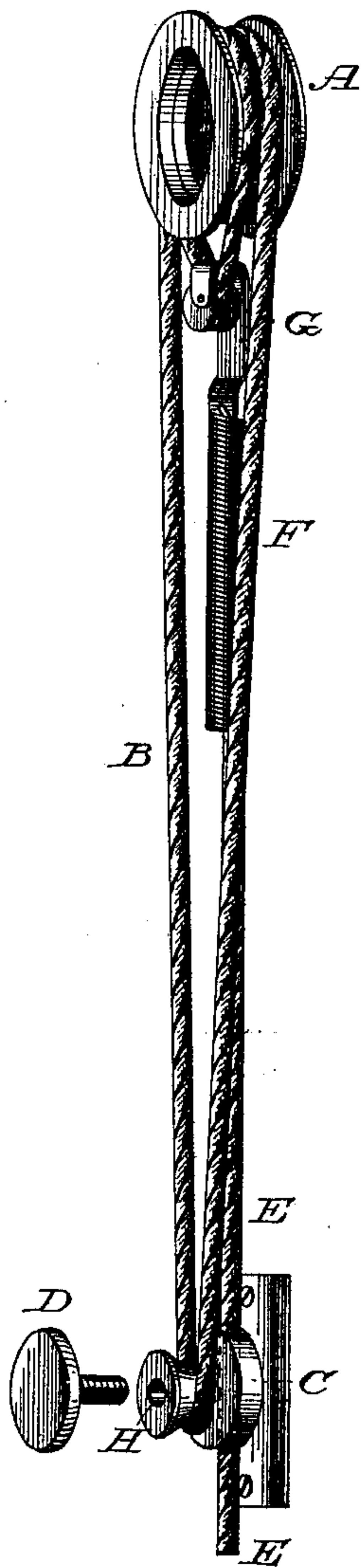


Fig. 1.

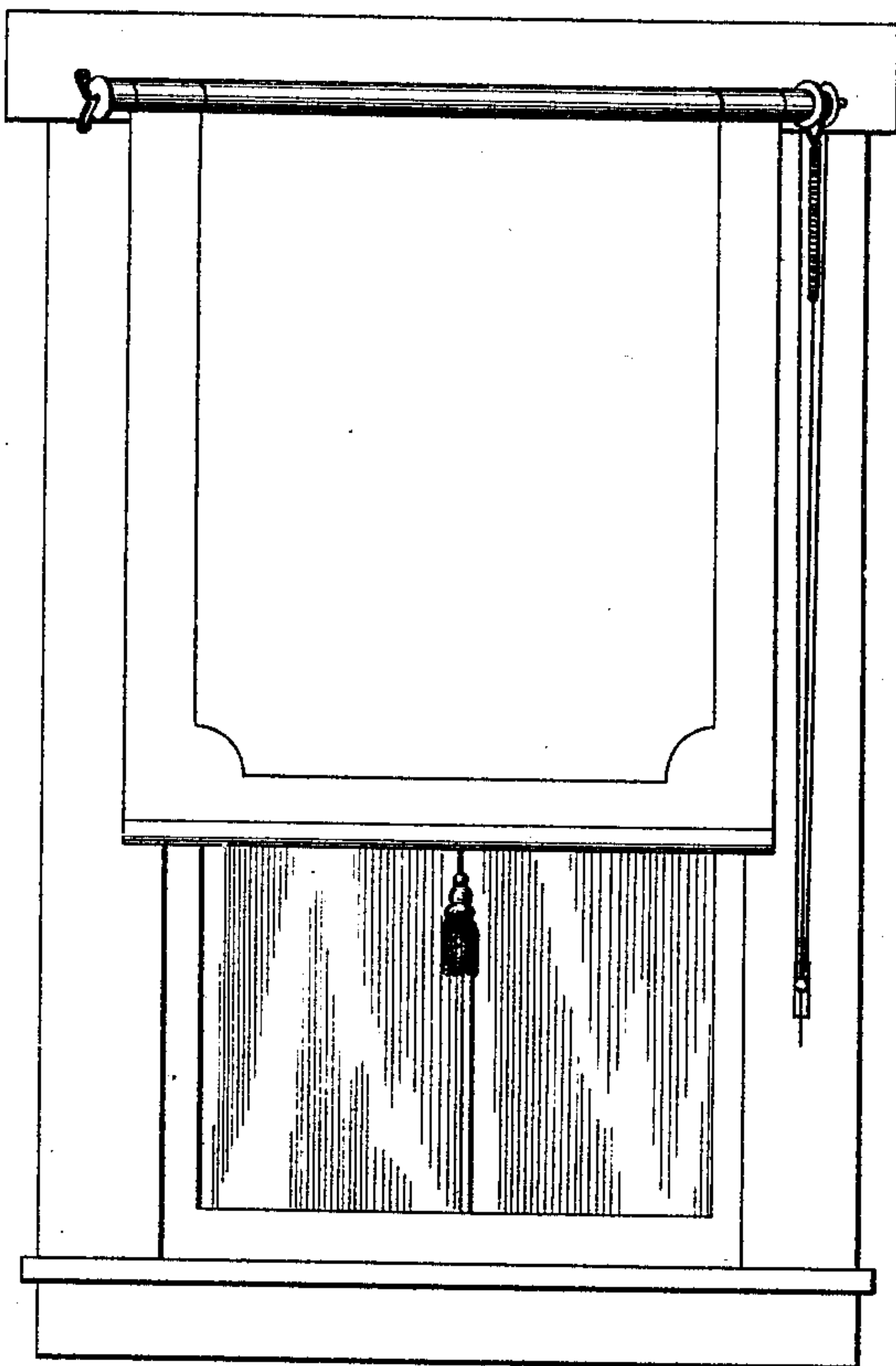
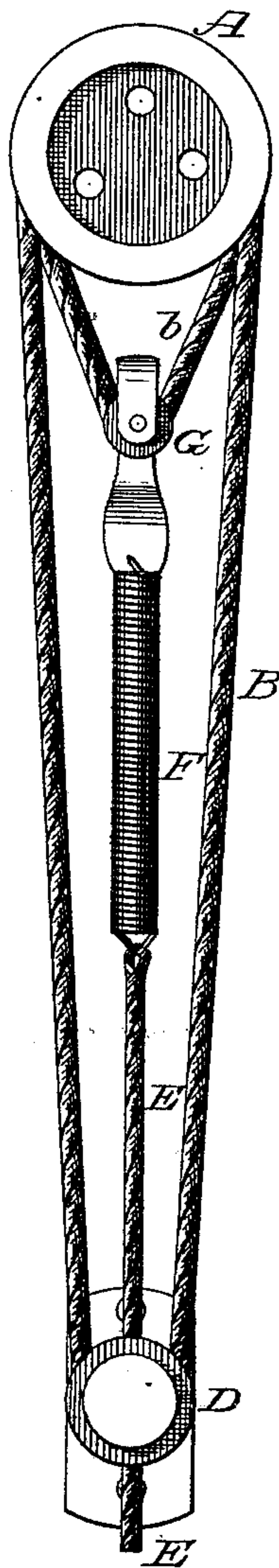


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

GEORGE C. MATHERS, OF LOUISVILLE, KENTUCKY.

IMPROVEMENT IN CURTAIN-FIXTURES.

Specification forming part of Letters Patent No. **213,917**, dated April 1, 1879; application filed January 2, 1879.

To all whom it may concern:

Be it known that I, GEO. C. MATHERS, of Louisville, county of Jefferson, and State of Kentucky, have invented certain Improvements in Curtain-Fixtures, of which the following is a specification:

My invention relates to an improvement upon that class of curtain-fixtures in which the curtain is held in position by an endless cord; and, instead of endeavoring to keep taut and take up the slack of the endless cord by means of a rack-pulley, as is usually done, I simply form a running loop in the endless cord around the roller end, and that loop is drawn down with sufficient force to afford the requisite tension to the body of the endless cord by means of a tightening-cord provided with a pulley and spring at the upper end, and fastened at the lower end by a device which I will call a "cord-holder," which will be hereinafter more fully described with reference to the accompanying drawings, in which—

Figure 1 represents an elevation of a window and a curtain with my improvement in use; Fig. 2, a perspective view of a part of a fixture embracing my improvement, and Fig. 3 another view of the same.

A indicates the roller end; C, the cord-holder; D, a thumb-screw, turning in hole H; E, the tightening-cord; F, the spring; G, the tightening-cord pulley and frame; *b*, the running loop of the endless cord B.

The lower end of the tightening-cord E passes down through a hole in the body of the cord-holder C, which is fastened to the facing of the window, and the thumb-screw D, when turned into the screw-hole H, presses the lower end of the cord E, and will hold it against the tension of the endless cord.

The holder is provided with a pulley-shaped projection, as shown, for the endless cord to move around when the curtain is to be raised or lowered, and by means of the thumb-screw D, when the tightening-cord is drawn down with the hand to cause the desired tension of the endless cord upon the roller end, it can be securely held to that adjustment.

The pulley G promotes smooth running of the cord in loop *b*, and the spring F secures a uniform tension of the cord, and by its auto-

matic action takes up any slack that may be in it, so that any hitching or jamming is avoided in the raising or lowering of the curtain, and by means of the tightening-cord tension on the running loop may be adjusted, as desired.

In the cord-holder, instead of the thumb-screw, an eccentric wheel or lever might be used to hold the tightening-cord; but I prefer the thumb-screw used as shown and described.

The tension of the endless cord can be adjusted, as and whenever desired, by means of the tightening-cord.

The lower end of the spring itself might be stretched down and fastened simply by a nail to the facing of the window; but in that case it would be difficult to adjust the tension, and I therefore prefer the tightening-cord and the device for holding the lower end of the same, so that it can be easily regulated and adjusted as desired.

The cord-loop might be formed in substantially the same way around a simple knob attached to the casing below, and the loop stretched upward instead of downward, as is shown in the drawings. I prefer the arrangement that I have described and shown, because the loop, pulley, and spring are at the top of the window, are less seen, and are out of the way.

From the foregoing description it is apparent that the design of my invention has been accomplished in the production of a fixture by means of which a curtain can be raised and lowered with an even and smooth motion, and can be held at any point of adjustment without other means of fastening than the simple friction of the cord upon its pulleys.

What I claim as new and of my own invention, and desire to secure by Letters Patent, is—

1. The tightening-cord E, in combination with and adapted to adjust the tension of the loop *b* of the endless cord B, and keep it taut, when held at its lower end, substantially as described and set forth.

2. The endless cord B, formed into a running loop, *b*, in combination with the pulley G and spring F, adapted to secure uniform action and elastic tension of the endless cord B, substantially as described and set forth.

3. The cord-holder C, having the pulley-

shaped projection or knob shown, the thumb-screw D, and its screw-hole H, and the vertical hole shown for the tightening-cord E, adapted to hold the main cord B down upon the roller end, and at the same time hold the said tightening-cord to any point of adjustment desired, substantially as described.

4. The combination of the cord-holder C, having the pulley shaped projection or knob shown, the thumb-screw D, and its screw-hole H, and the vertical hole shown for the tight-

ening-cord E, and the tightening-cord itself, the whole adapted to hold the main cord B down upon the roller end, and to hold down with an easily-adjustable tension the tightening-cord E, substantially as described and set forth.

GEO. C. MATHERS.

Witnesses:

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