

(No Model.)

B. HANDFORTH.

SPRING ROLLER FOR CURTAIN FIXTURES.

No. 284,417.

Patented Sept. 4, 1883.

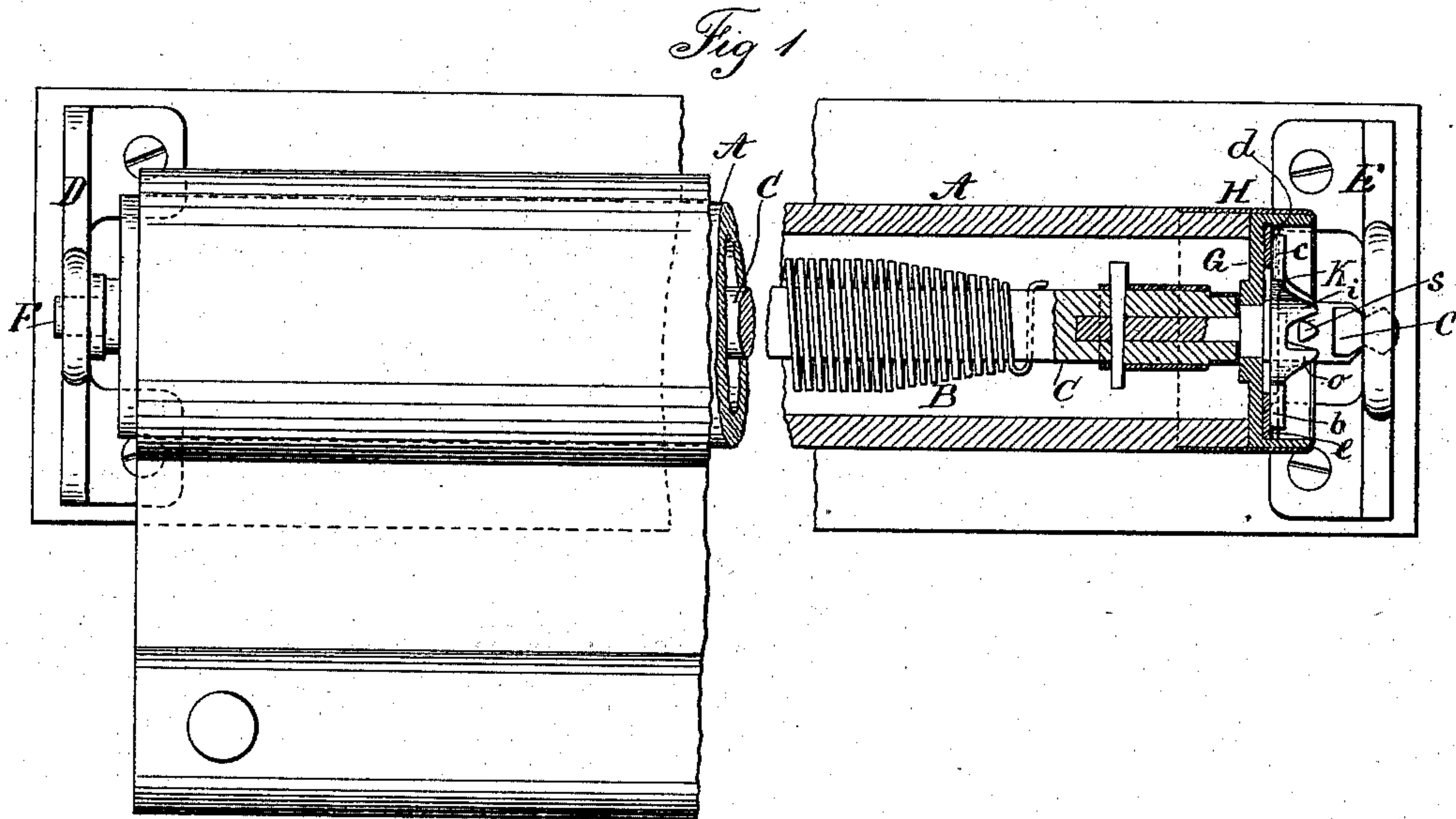
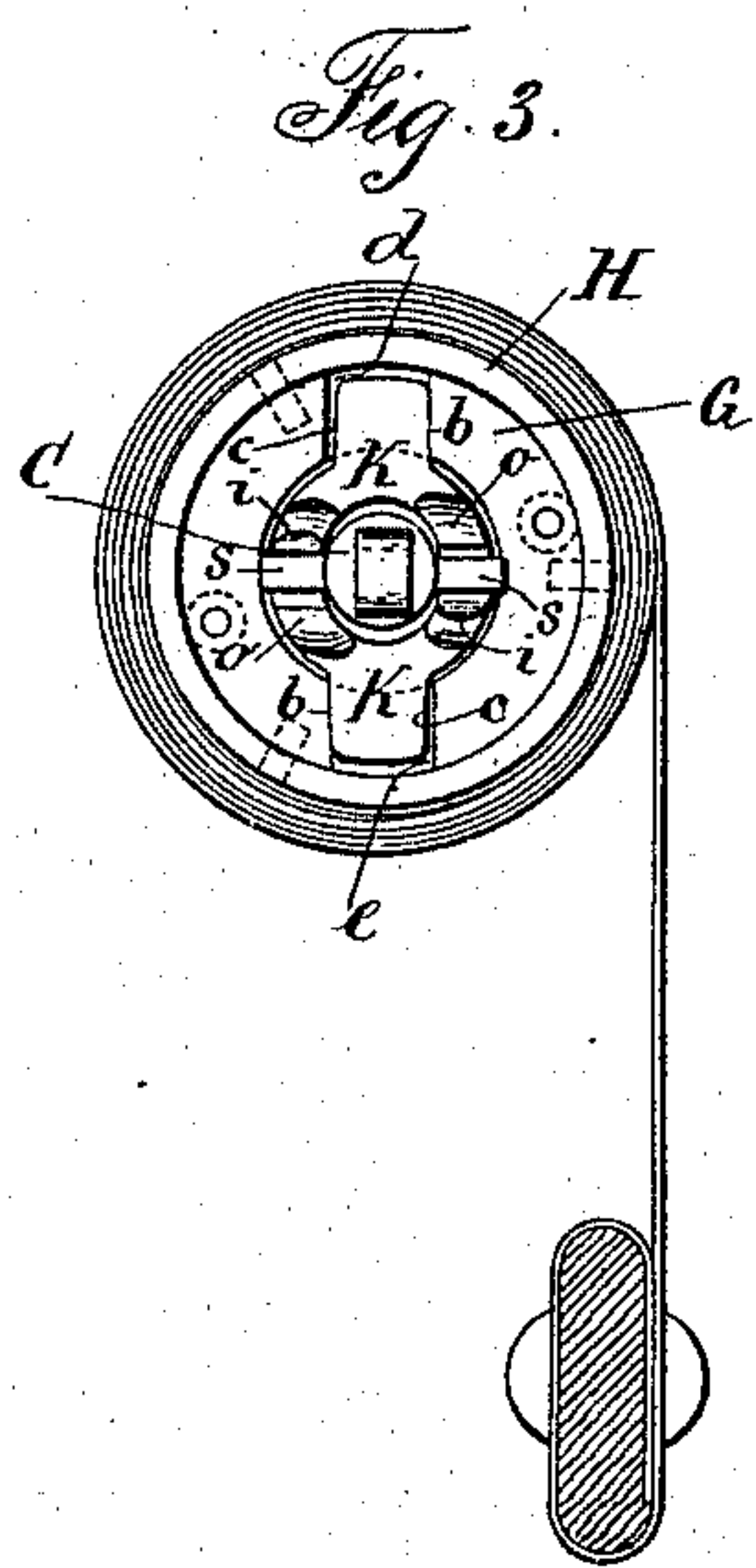
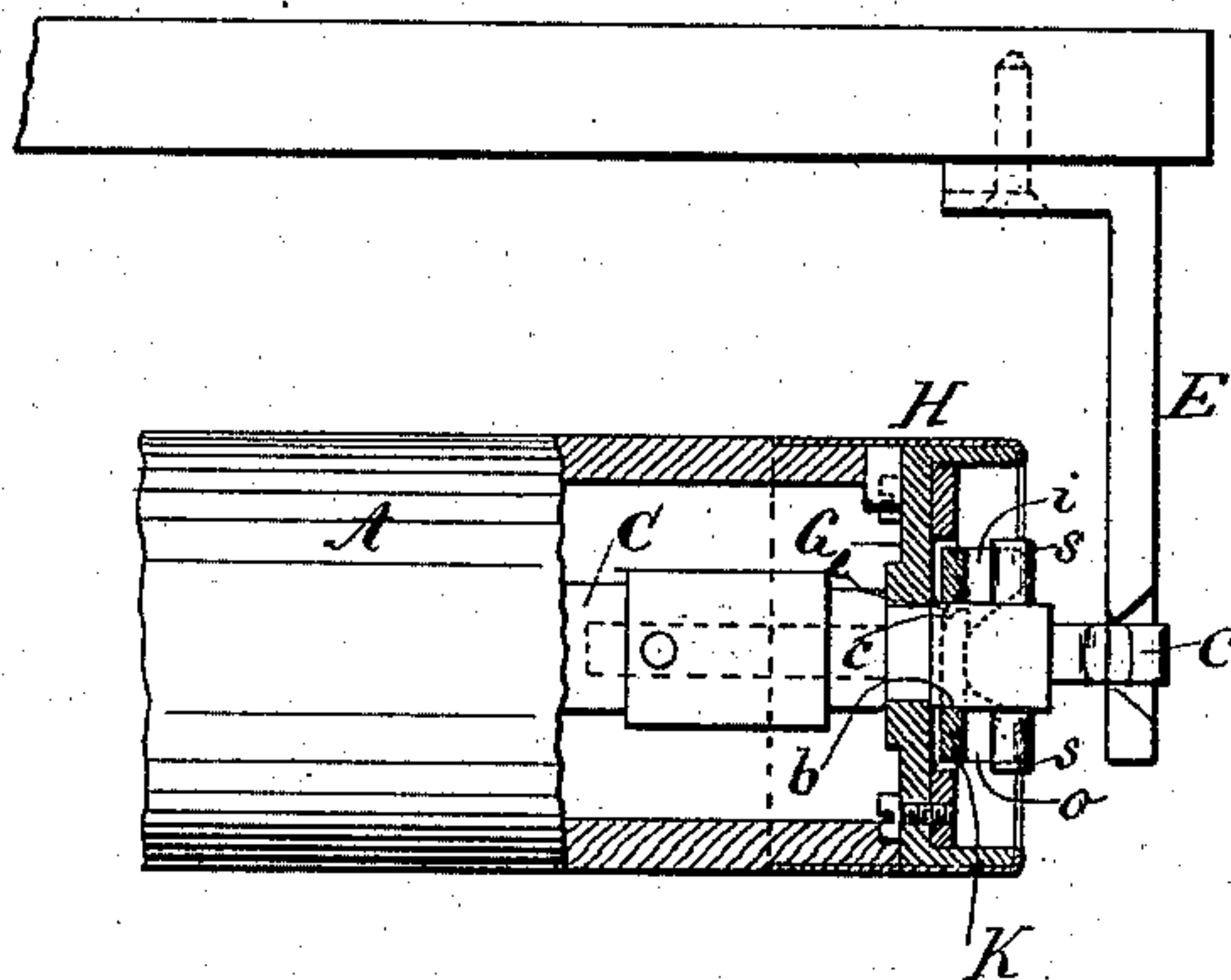


Fig. 2.



Witnesses:
J. Staib
Chas. H. Smith

Inventor:
Benjamin Handforth
per *Lemuel W. Perrell* atty.

UNITED STATES PATENT OFFICE.

BENJAMIN HANDFORTH, OF HOBOKEN, NEW JERSEY.

SPRING-ROLLER FOR CURTAIN-FIXTURES.

SPECIFICATION forming part of Letters Patent No. 284,417, dated September 4, 1883.

Application filed June 14, 1883. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN HANDFORTH, of Hoboken, in the county of Hudson and State of New Jersey, have invented an Improvement in Spring-Rollers for Curtain-Fixtures, of which the following is a specification.

Curtain-fixtures have been provided with a coupling-tube upon the spindle, a stop on the roller, and a pin on the spindle acting upon an incline in the coupling-sleeve to move the same endwise when the spindle is revolved by the spring of the curtain-fixture, and thereby block the spindle and prevent the spring unwinding when the curtain-fixture is removed from the bracket. In this instance said coupling performed no other duty, and the curtain-fixture was free to roll up or be drawn down, the parts being balanced.

My invention relates to a compound coupling-bar that is provided with an eye around the spindle, and with inclined horns resting against a cross-pin upon the spindle in such a manner that the coupling-bar serves as a stop to hold the curtain-roller at any place to which it may be moved, and which stop is relieved when the curtain is partially drawn down, so as to be out of the way, and allow the spring to draw up the curtain, and said stop falls into place when a pause occurs in the movement of the curtain, and if the curtain-fixture is lifted from the bracket the spindle is held, so that the spring cannot unwind.

In the drawings, Figure 1 is a representation of the ends of the curtain-fixture, one part being in section. Fig. 2 is a sectional plan of the roller-end, and Fig. 3 is an end view of the same.

The roller A is made hollow at one end, and within it is the spring B, around the spindle C, and one end of the spring is attached to the roller and the other to the spindle. These parts are of ordinary character; so, also, are the brackets D E for the pivot F and spindle C, respectively. This spindle is flattened, so as to set into the notched bracket E. The roller-end G is provided with a central opening for the spindle C, and it is held in place, usually, by a metal band or cylinder, H, that surrounds said roller-end and part of the wooden roller. These parts may be of any known character.

Around the spindle C is the eye of the coup-

ling-bar K. This bar hangs loosely, and there are twin projections *i* and *o* on opposite sides, and between them there is a cross-pin, *s*, passing through the spindle. There is a jaw between the pairs of projections *i o* to receive the pin *s*, and the inner faces of the projections *i* are inclined, as seen in Fig. 1. As the coupling-bar K hangs on the pin *s*, the tendency is for the bar to move backwardly against the surface-plate G of the roller-end, because the weight of the bar hangs on the inclined face of the projections *i*. The faces of the projections might also be inclined; but in practice it is not necessary, and they may be at right angles to the bar.

The side edges of the bar K, near the ends, are made inclined at *c* and square at *b*, and upon the roller-end or surface-plate G there are offsets *d* and *e*, formed by depressions in the surface of said plate G, the ends of which are preferably square. Upon pulling down the curtain the ends of the offsets *d e*, coming against the inclined edges *c*, push outward the bar K, the incline of *i* raising such bar slightly on the spindle, and when the movement of the curtain and roller is arrested the coupling-bar drops back or slides down the incline of *i* by its own weight, the end of said bar dropping into the spaces or depressions between the ends of the offsets *d* and *e* in said surface-plate G, and the curtain is blocked and held, because the spring, as it tends to wind up the curtain, presses the inclines of *i* upon the pin *s* and the coupling-bar is forced more firmly into place. Upon drawing down the curtain the parts are again relieved. If the curtain is allowed to roll up rapidly by the action of the spring, the coupling-bar has not sufficient time to drop back into its notches in the surface-plate G, between the ends of *d e*, and it is kept forward by such offsets *d e*; but when moving slow, or when there is a pause in the movement of the curtain, the coupling-bar locks the parts. When the curtain-fixture is lifted out of the brackets, the parts will be locked by the spring tending to move the coupling-bar, and the pin, pressing on the inclined parts of *i i*, forces the coupling-bar firmly back into the depressions between the offsets *d e*.

I claim as my invention—

1. The combination, with the roller, spring, and spindle, of a coupling-bar having an eye

that is loose around the spindle, the projections *i o* on the coupling-bar, the pin *s* in the spindle, the roller-end, and the offsets *d e*, substantially as set forth.

- 5 2. The combination, in a curtain-fixture, of a coupling-bar surrounding the spindle of the fixture, and having twin inclined projections *i o* upon opposite sides of the eye of said bar, and inclines *c* upon its arms, the pin *s*, pass-
10 ing through the spindle and between said twin projections, and the surface-plate *G*, having

depressions therein to form the offsets *d e* in said plate to receive the ends of the coupling-bar and lock the fixture, substantially as specified.

Signed by me this 11th day of June, A. D. 1883.

BENJN. HANDFORTH.

Witnesses:

CHAS. H. SMITH,
WILLIAM G. MOTT.