

(No Model.)

H. L. PEIRCE.

SPINNING RING AND HOLDER THEREFOR.

No. 257,238.

Patented May 2, 1882.

Fig. 1.

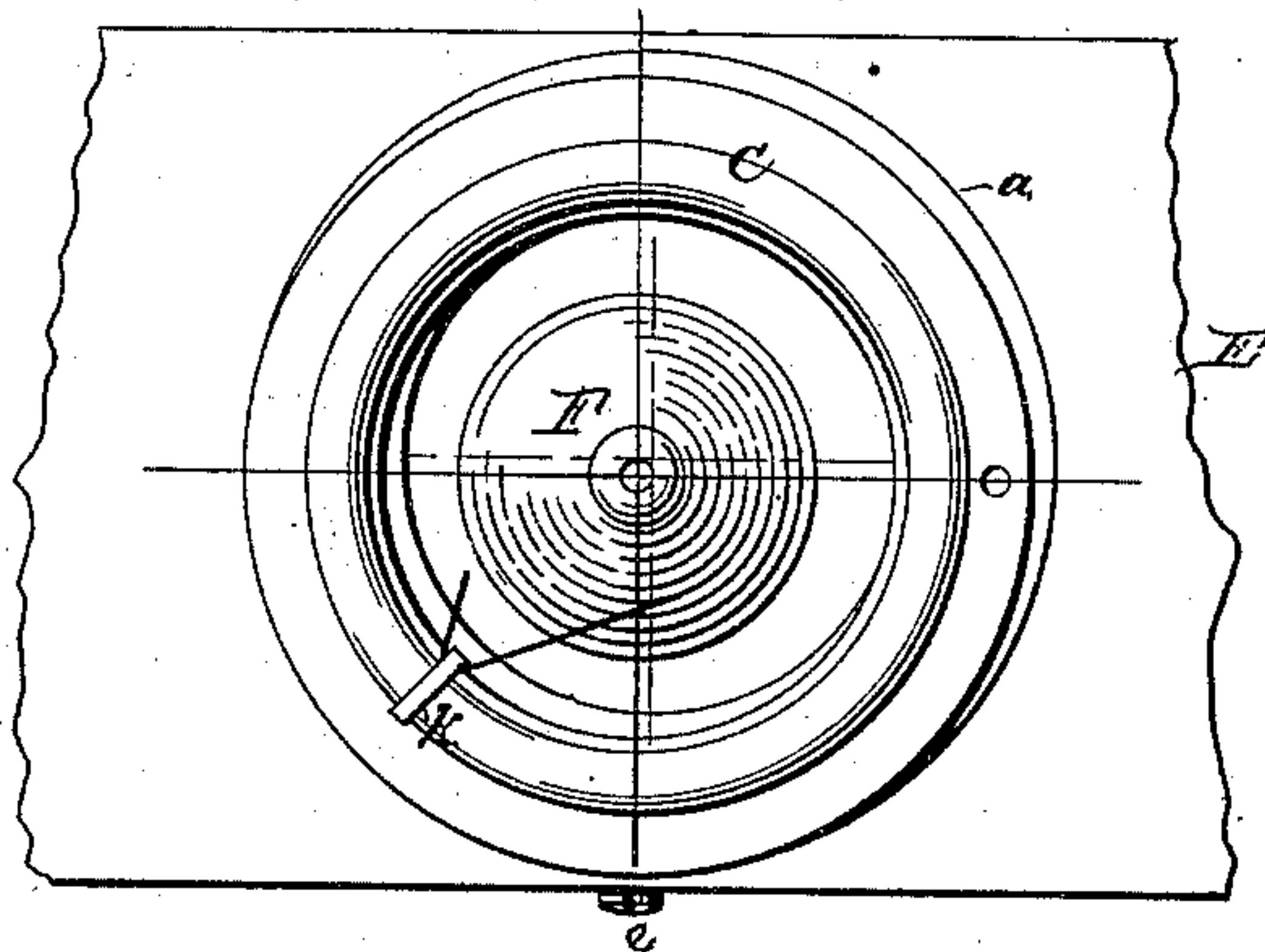


Fig. 3.

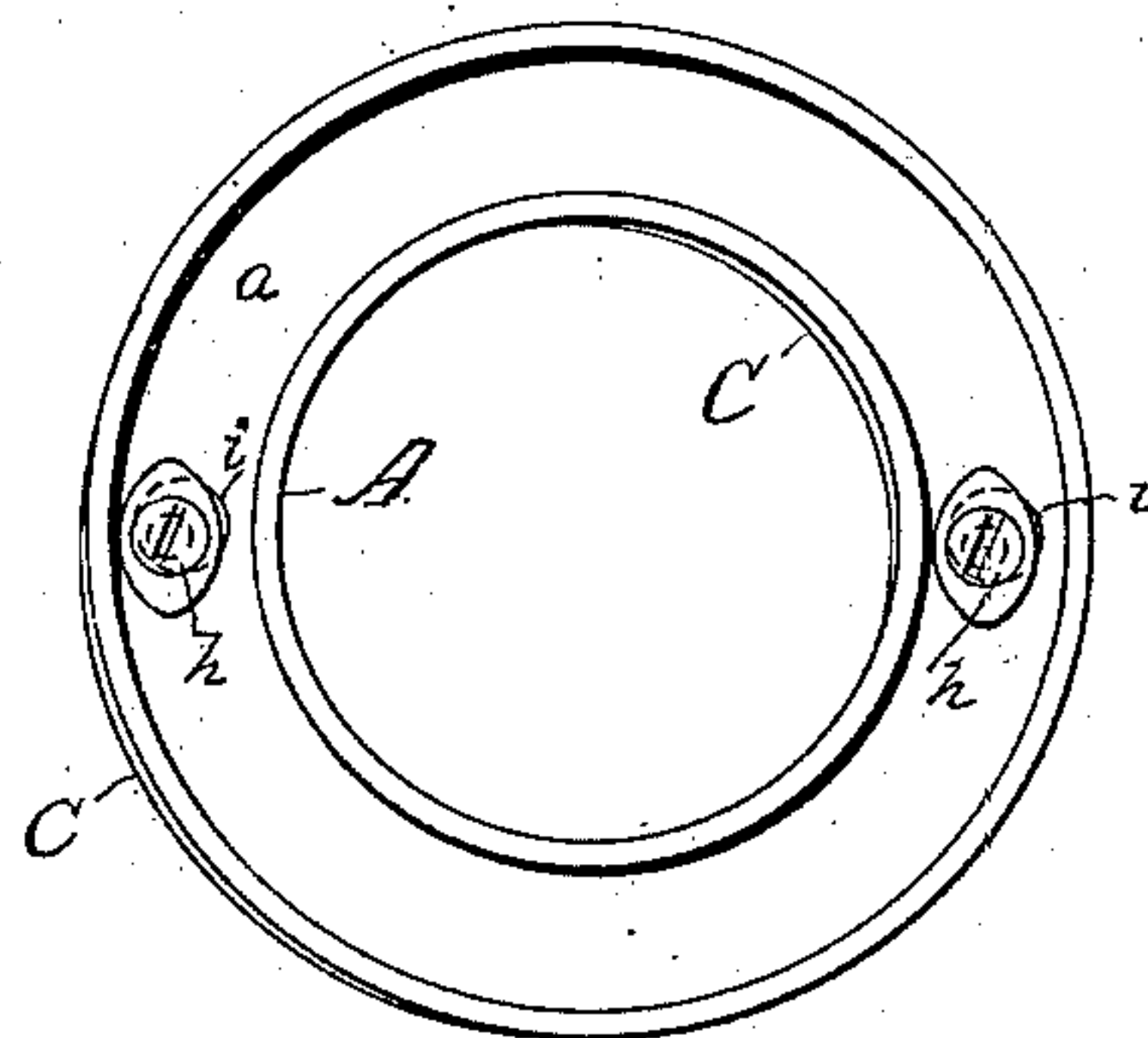
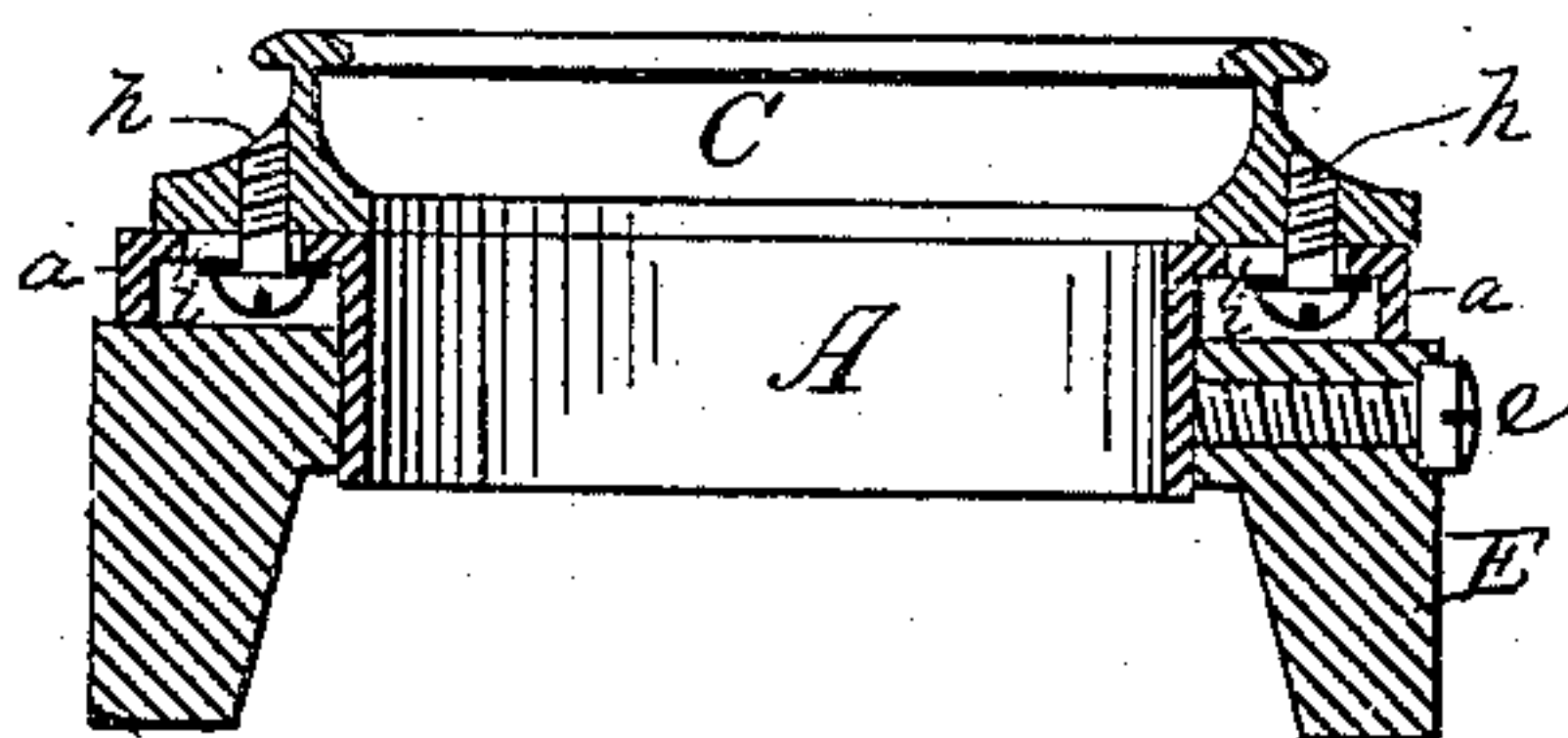


Fig. 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

HORATIO L. PEIRCE, OF PROVIDENCE, RHODE ISLAND, ASSIGNOR OF ONE-FOURTH TO WILLIAM W. JOHNSTON, OF SAME PLACE.

SPINNING-RING AND HOLDER THEREFOR.

SPECIFICATION forming part of Letters Patent No. 257,238, dated May 2, 1882.

Application filed July 10, 1880. (No model.)

To all whom it may concern:

Be it known that I, HORATIO L. PEIRCE, of Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Spinning-Rings; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to that class of spinning-rings and holders therefor in which during the operation of spinning the rings are automatically adjusted to concentric relation with the bobbin by the pull of the yarn upon the traveler.

An adjustable spinning-ring has heretofore been inserted in an aperture in the rail around the spindle; but the friction of the outer periphery of the ring against the wall of the aperture interferes with the prompt automatic adjustment of a ring so arranged.

It is the object of my invention to so mount an automatically-adjustable spinning-ring that it will encounter no frictional retardation to its adjustment except such as results from its own weight upon its bearing, and will therefore respond promptly to the pull of the yarn upon the traveler.

In the accompanying drawings, Figure 1 is a plan view of the ring upon its holder surrounding a spindle and bobbin. Fig. 2 shows a diametric section of the ring and holder and a cross-section of the rail. Fig. 3 is a bottom view of the ring-holder, the ring being also partially in view.

The letter A indicates the holder, which is annular in form, and has a flange, *a*, which rests upon the top of the rail E, while the body of the holder sits in an aperture of said rail, where it is secured by a screw, *e*. The under side of the flange *a* is recessed to receive the heads of the headed pins *h h*, which project downwardly through apertures *i* from the ring C, which sits loosely upon the top of the holder.

Suitable washers are preferably interposed between the heads of the pins and the under surface of the holder. The pins *h* are so adjusted as to simply prevent undue upward movement of the ring without interfering with its lateral adjustment, the apertures *i* being sufficiently larger than the pins to permit said

pins to have a limited play therein in all directions.

The outer periphery of the ring has no lateral bearing, and is therefore free from friction, and as the apertures *i* and pins *h* are entirely inclosed and protected from flying fiber and dust, there will be no resistance to the adjustment of the ring except such as results from its weight upon its bearing.

The letter *k* designates the traveler, through which the yarn passes from the bobbin F, in the ordinary manner. As this traveler traverses the ring the pull of the yarn causes the shifting of the ring, so that it will preserve a concentric relation to the bobbin, notwithstanding any ordinary slight unevenness in its winding or deviation of the spindle from a vertical position.

It is well known that a non-adjustable spinning-ring, or one that does not accommodate itself to the position of the bobbin, is liable to be worn unevenly by its traveler as a result of unevenness of tension upon the yarn, this unevenness of tension resulting from various causes—as, for instance, uneven winding of the bobbin, deviation of the spindle from the vertical, and wearing away of spindle-bearings.

The ring may be connected directly to the top of the rail.

What I claim is—

1. The combination, with the holder adapted to be secured to the rail concentrically with the spindle-aperture thereof, of the ring and devices for loosely connecting the same to the top of said holder, whereby a limited play laterally thereon in all directions is permitted to the ring, substantially as described.

2. The combination, with the holder A, adapted to be secured in the spindle-aperture of the ring-rail of a spinning-machine, and having a flange, *a*, recessed in its under side, and provided with apertures *i i*, of the ring C, sitting loosely upon the top of said flange and provided with downwardly-projecting pins fitting loosely through the apertures in said flange, and headed on the under side thereof, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 3d day of July, 1880.

Witnesses: HORATIO L. PEIRCE. [L. S.]

ROBT. W. BURBANK,
RICHARD B. COMSTOCK.