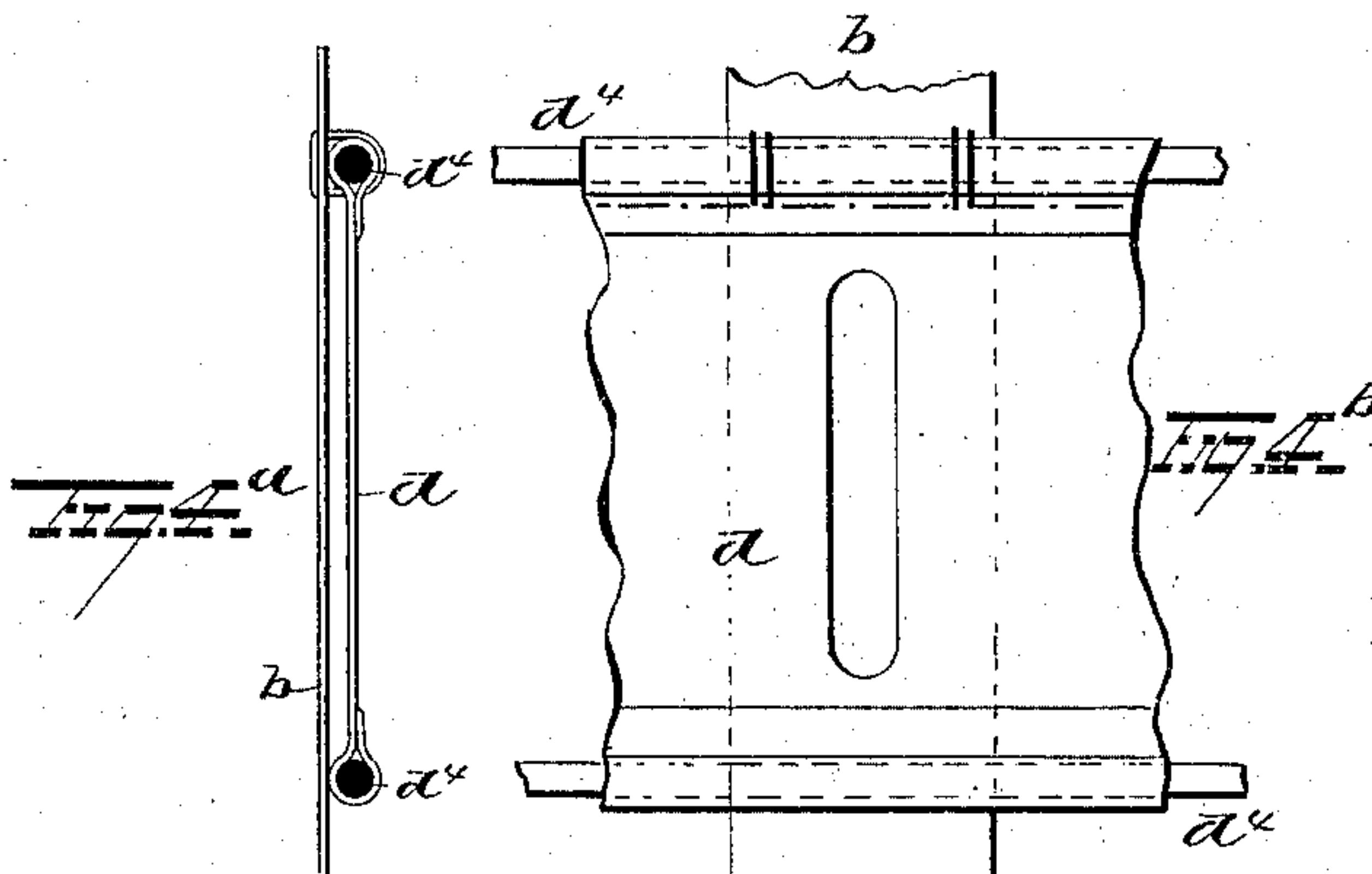
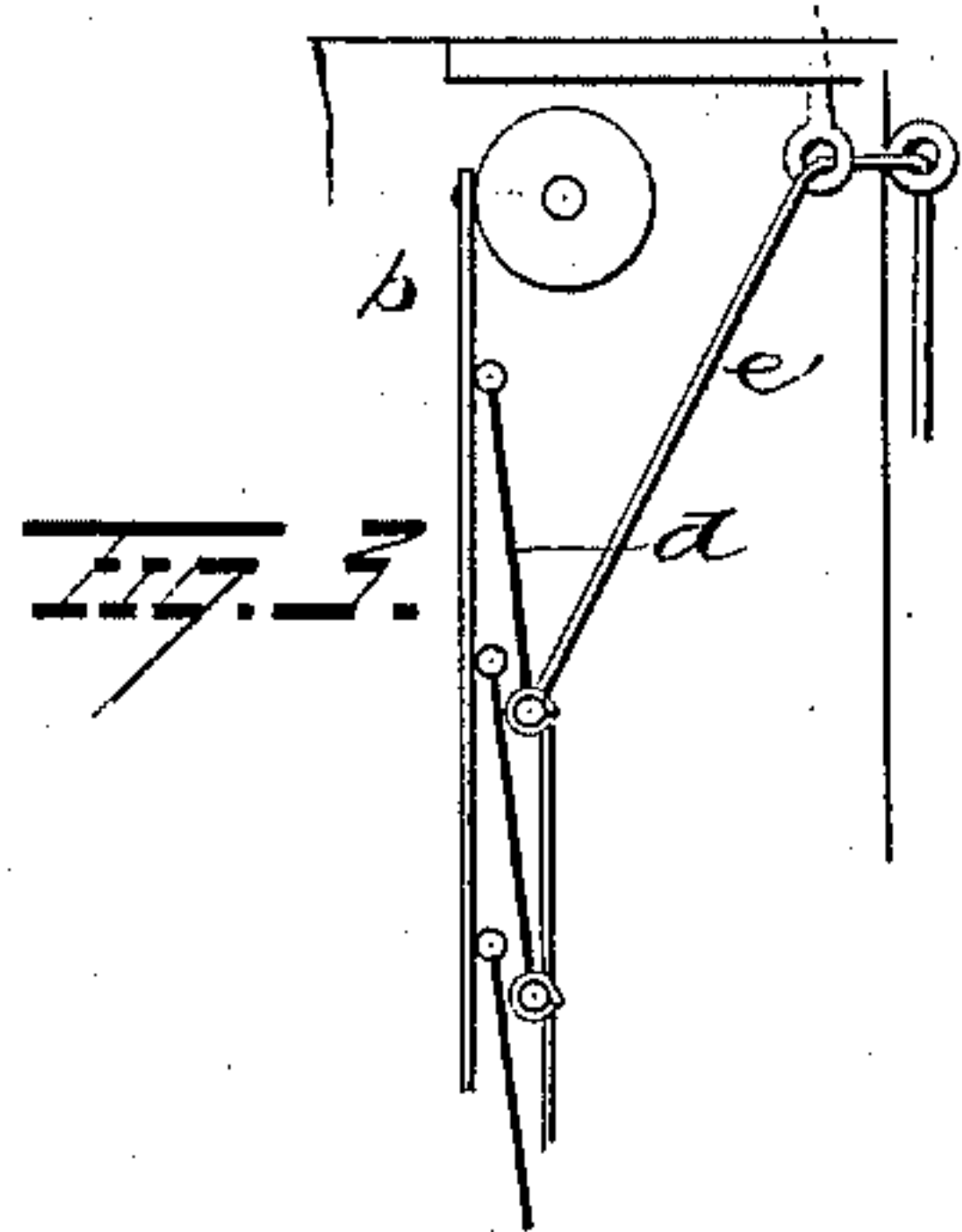
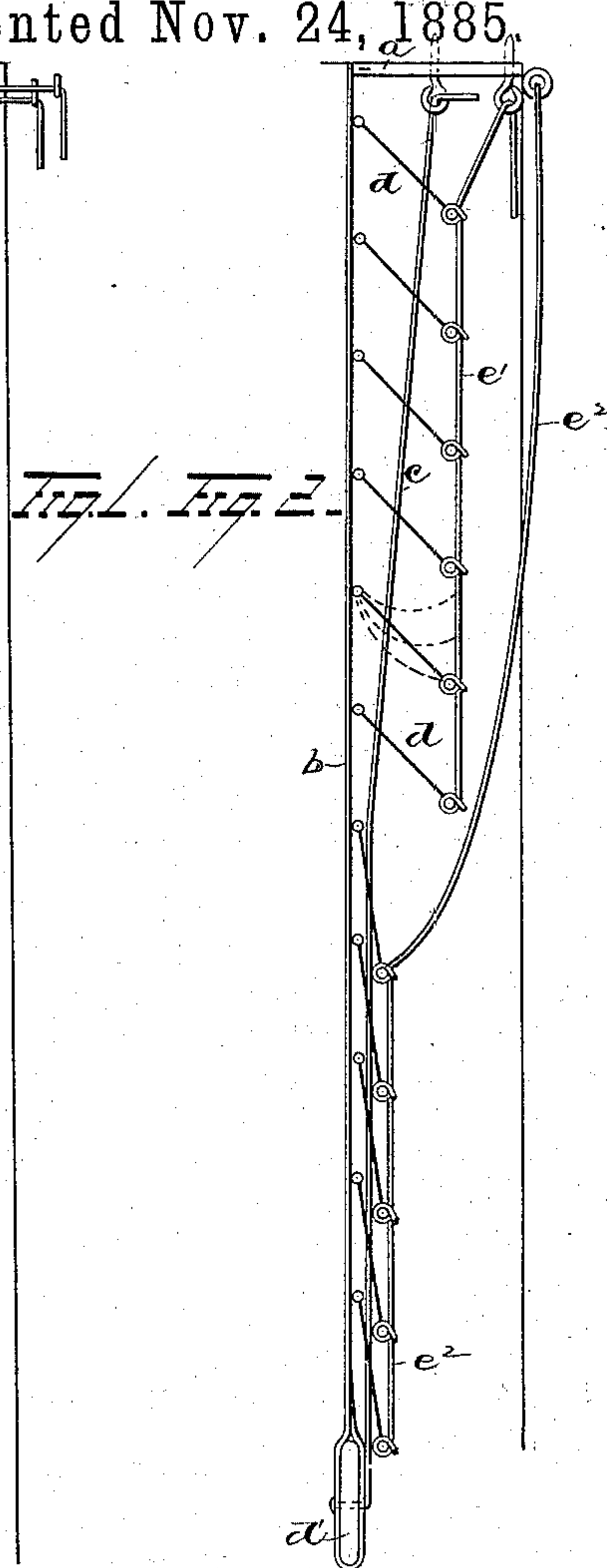
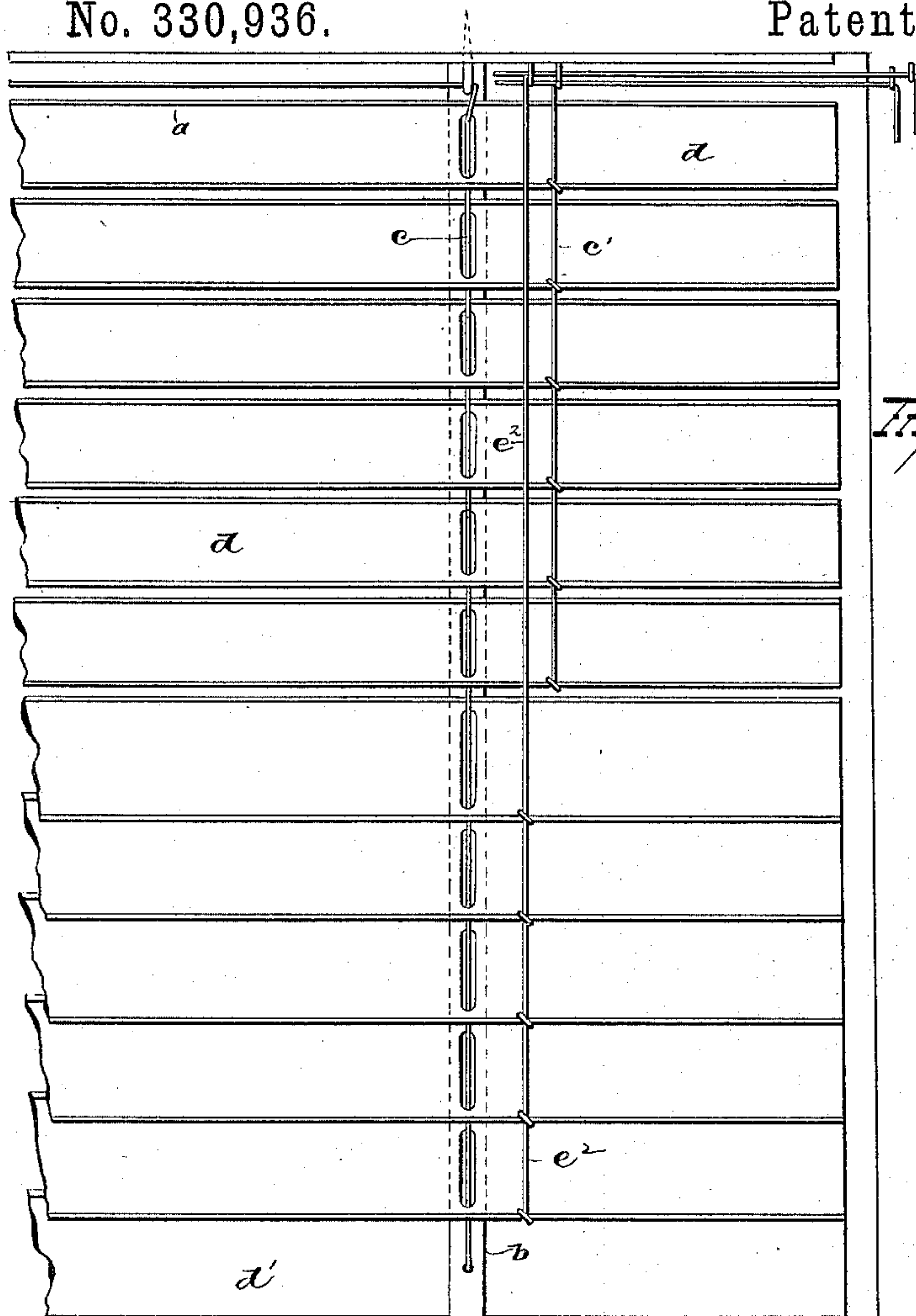


(No Model.)

C. O. SÖRLIE.
SHADE AND BLIND.

No. 330,936.

Patented Nov. 24, 1885.



WITNESSES
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UNITED STATES PATENT OFFICE.

CARL OVINIUS SÖRLIE, OF CHRISTIANIA, NORWAY.

SHADE AND BLIND.

SPECIFICATION forming part of Letters Patent No. 330,936, dated November 24, 1885.

Application filed September 25, 1885. Serial No. 178,179. (No model.) Patented in Norway October 30, 1883; in Sweden June 7, 1884; in England August 16, 1884, No. 10,480; in Denmark August 27, 1884; in Belgium August 30, 1884; in France December 24, 1884, and in Germany February 3, 1885.

To all whom it may concern:

Be it known that I, CARL OVINIUS SÖRLIE, a subject of the King of Norway, and residing in the town of Christiania, Norway, have invented certain new and useful Improvements in Shades and Blinds; 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 appertains to make and use the same.

The present invention has reference to a window-blind composed of separate slats, which is not only adjustable, but can also be rolled up, so that the arrangement combines the properties of ordinary window-curtains and of Venetian blinds. The arrangement is further distinguished by this, that the admission of light and air can be more completely regulated than with the ordinary slat blinds. In the drawings, Figure 1 shows an exterior view of half of such a curtain. Fig. 2 is a vertical section through Fig. 1. Fig. 3 shows a side view of the upper end of a curtain suspended from an ordinary curtain-rod. Figs. 4^a and 4^b are cross-section and view of a part of a slat.

These slats *d* are of paper or cloth strips, into each of whose longitudinal edges a thin wire or tube, *d'*, is sewed or fastened in any other convenient manner with wire clamps, &c. The slats in this way possess in the longitudinal rims *d'* the necessary strength in the direction of the length only, but are laterally perfectly flexible, so as to admit of being rolled up. The slats are connected at one edge with the bands *b*, so as to allow them to turn, and the bands are fastened to a board, *a*, at the top of the window-sash. The lowest slat, *d'*, is a thin wooden board.

For pulling up the curtain in the arrangement shown in Figs. 1 and 2, use is made of the ordinary cords, *c*; but if the arrangement is to be rolled up like an ordinary curtain it is fastened by the band *b*, Fig. 3, immediately upon the rotary curtain-rod. The cords *c*, passing through the slots in the slats, are not used then. The slat curtain can of course be rolled up from below, as well as vice versa.

To adjust the slats to regulate the admission of light and air, use is made of the cords *e'* and *e''*, fastened to the free edges of the slats, and guided to the right side of the window through eyelets, like the cords *c*. The cord *e'* is connected with the upper half of the slats, the cord *e''* with the lower half, so that it is possible to open the upper slats only or the lower ones only, or all of them at once. The slats can also be divided into three or more groups, requiring of course a corresponding number of cords.

From Fig. 2 it is obvious that the more or less inclined position of the opened slats can be regulated by drawing on the cord in question. If the material of the slats is very flexible, they will necessarily sag somewhat, especially in a horizontal position, as shown in dotted lines in Fig. 2 at *d''*, still this does not interfere with the proper function of the slats.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A window-curtain composed of strips of paper or cloth having a wire or tube secured along their longitudinal edges, whereby the strips are given rigidity in the direction of their length, but are flexible in the direction of their widths, substantially as set forth.

2. A window-curtain composed of strips of paper or cloth having wires or tubes sewed or fastened to their edges, and means for gathering or rolling the slats, substantially as set forth.

3. A window-curtain composed of strips of paper or cloth having wires or tubes secured in their longitudinal edges, and bands for hanging the same, the bands being secured at the ends of the wires or tubes, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

CARL OVINIUS SÖRLIE.

Witnesses:

THEODOR HAUG,
OSCAR WING.