(No Model.) 2 Sheets—Sheet 1.

C. G. CHRISTENSEN.

VENETIAN BLIND.

No. 481,473. Patented Aug. 23, 1892.

Fig. 1.

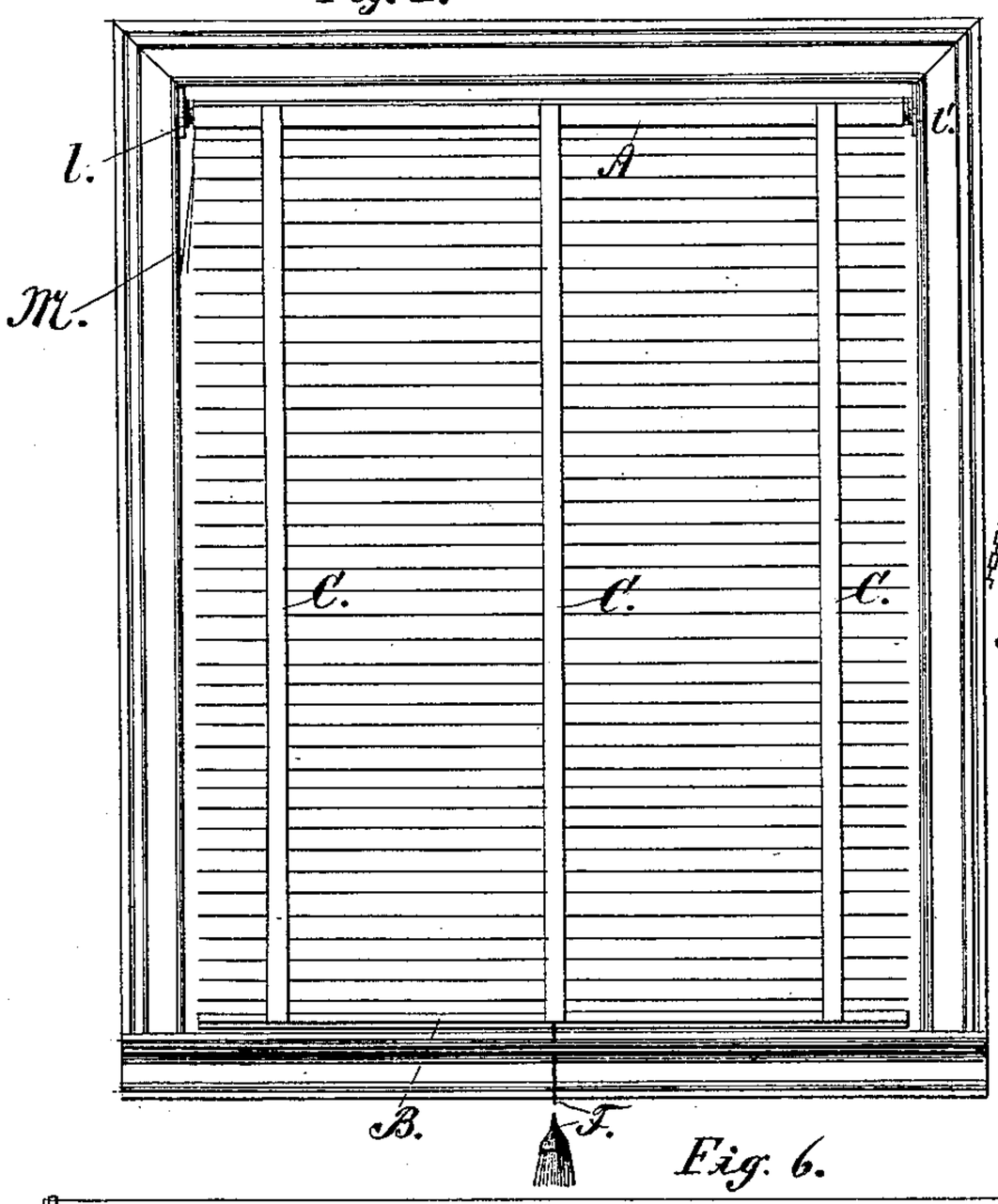


Fig. 2. Fig. 3 Fig. 4. Fig. 5.

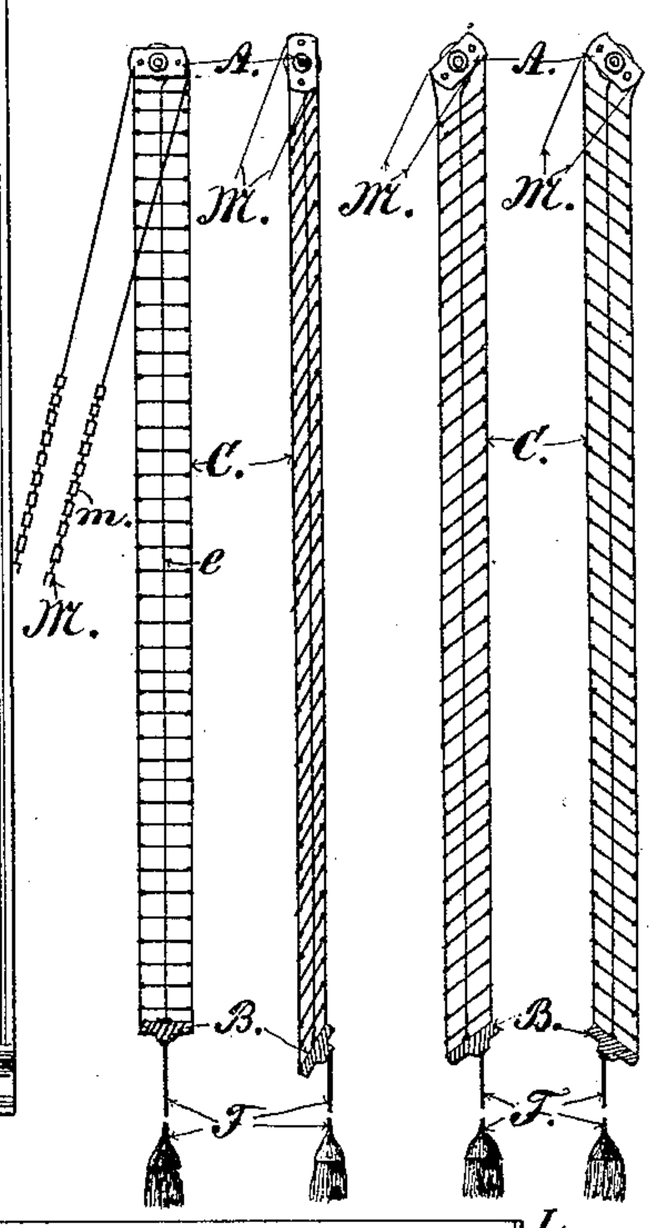


Fig. 6.

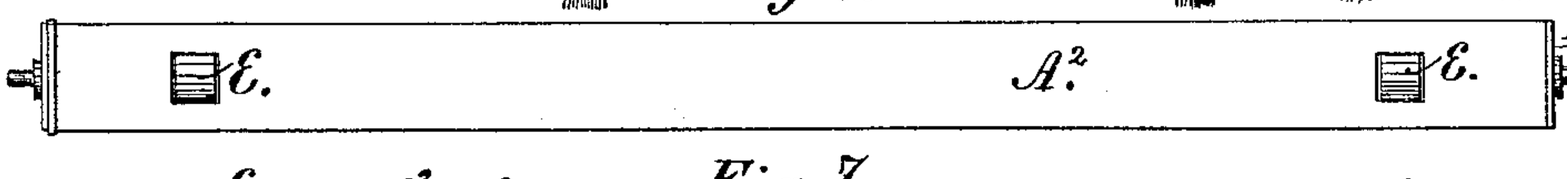


Fig. 7.

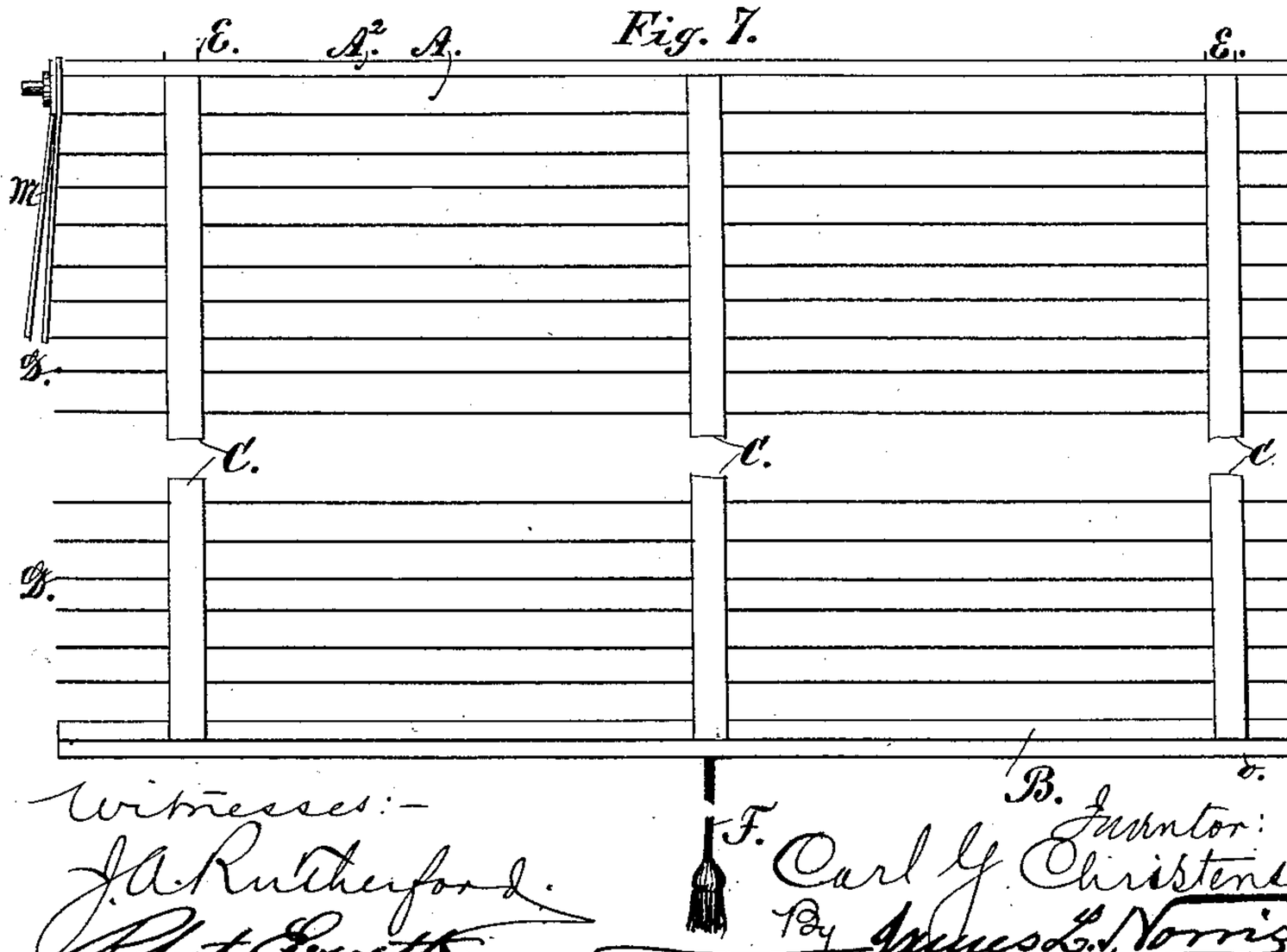
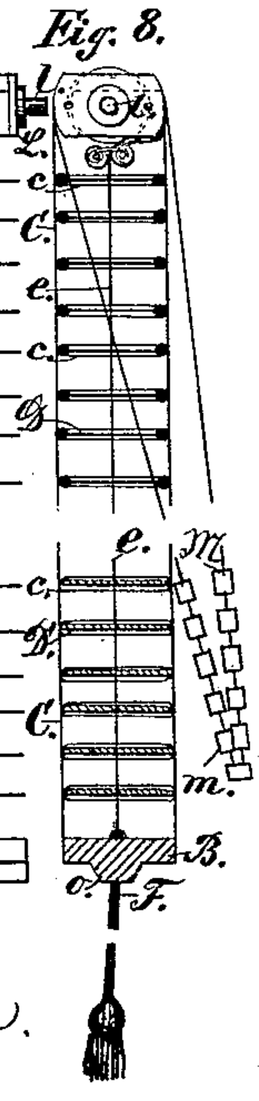


Fig. 8.



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Inventor:
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By James L. Norris.
Attorney.

(No Model.) 2 Sheets—Sheet 2.

C. G. CHRISTENSEN.

VENETIAN BLIND.

No. 481,473. Patented Aug. 23, 1892.

Fig. 1.

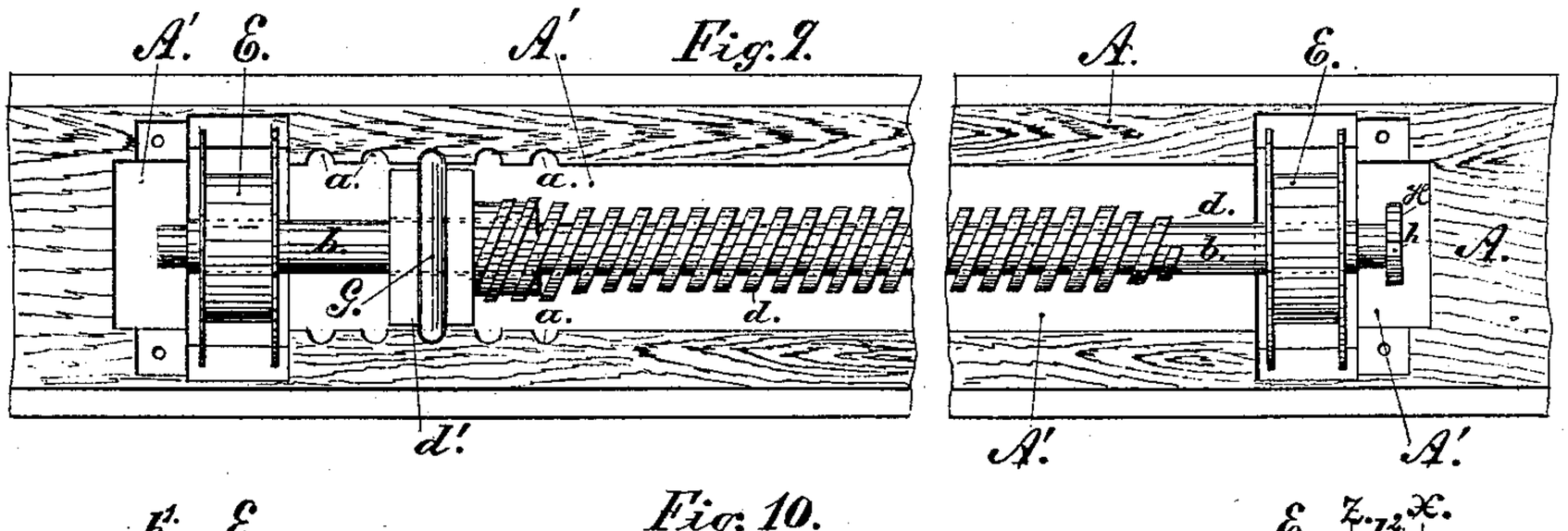


Fig. 10.

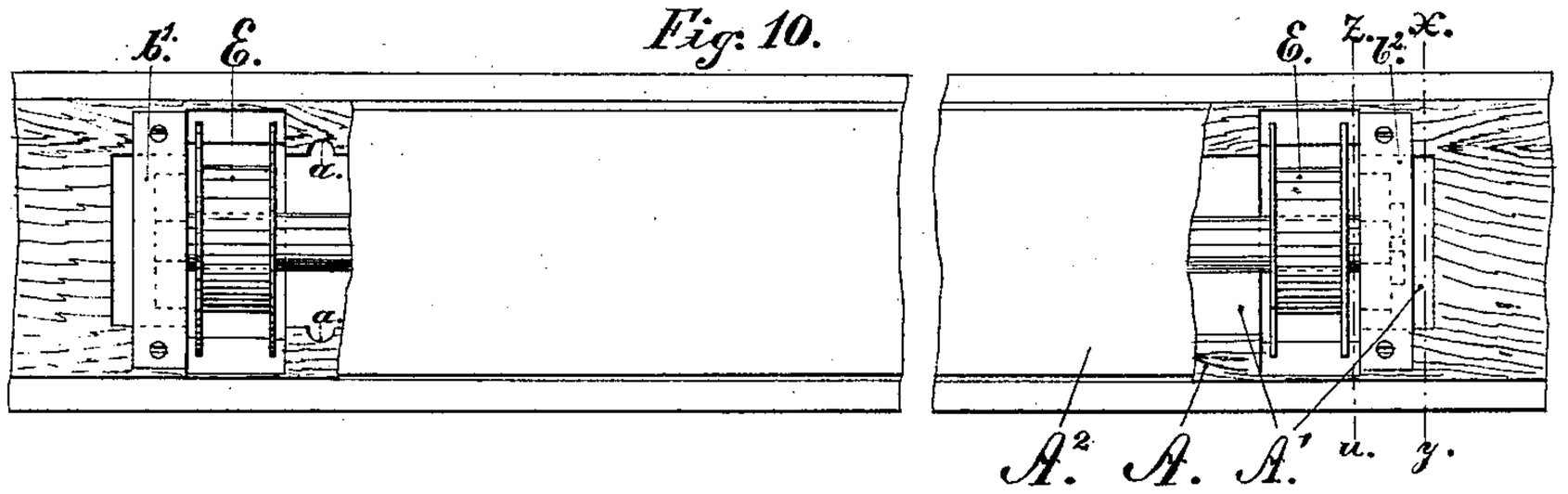


Fig. 16.

Fig. 13.

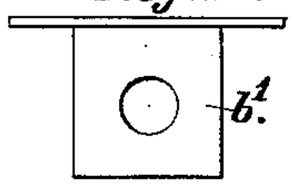


Fig. 12.

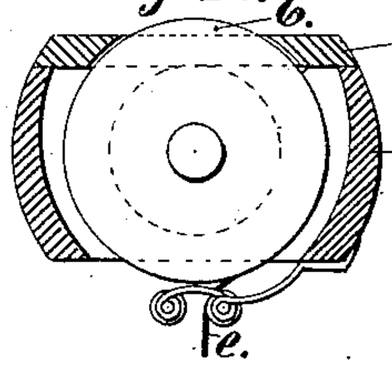


Fig. 11.

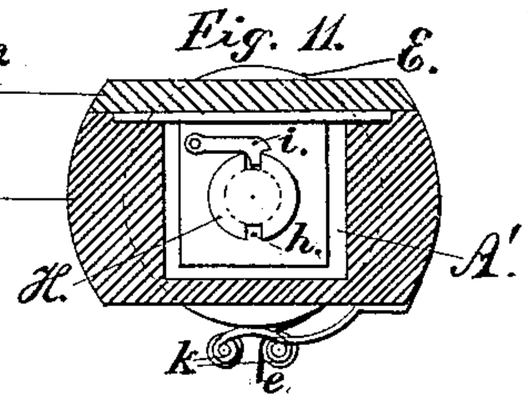


Fig. 17.

Fig. 15.

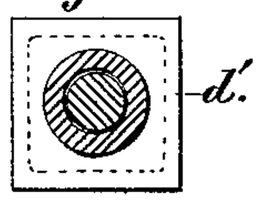


Fig. 14.

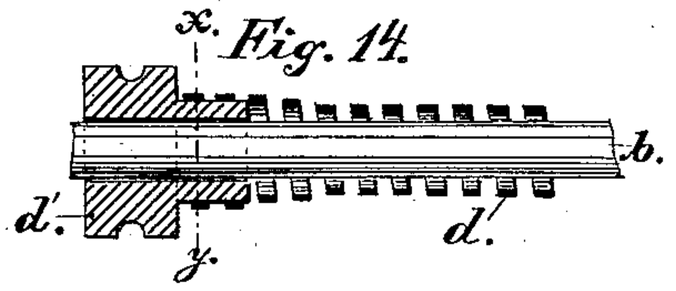


Fig. 19.

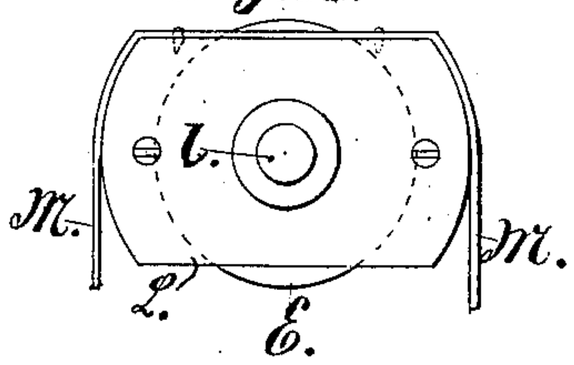
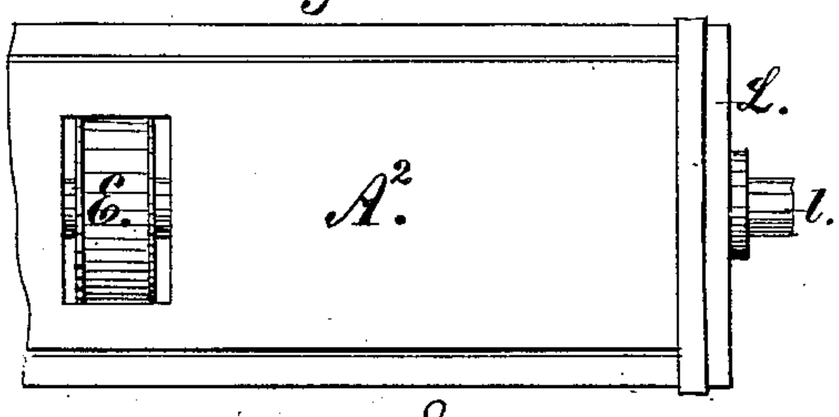


Fig. 18.



Witnesses:—
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By James L. Norris.
Attorney

UNITED STATES PATENT OFFICE.

CARL GUSTAV CHRISTENSEN, OF CHRISTIANIA, NORWAY.

VENETIAN BLIND.

SPECIFICATION forming part of Letters Patent No. 481,473, dated August 23, 1892.

Application filed November 9, 1891. Serial No. 411,371. (No model.)

To all whom it may concern:

Be it known that I, CARL GUSTAV CHRISTENSEN, a subject of the King of Sweden and Norway, and a resident of the city of Christiania, Norway, have invented new and useful Improvements in Venetian Blinds, of which the following is a specification.

This invention relates to self-lifting Venetian blinds. The said invention consists of an arrangement of Venetian blinds by which they are made self-lifting and so that they may be easily taken down and replaced again, the said blinds being arranged to rest on pivots in brackets secured to the window-frame. The Venetian blind is regulated by turning the top piece on its pivots in one or the other direction, according as more or less light is required in the room.

The turning of the axis on which the lines serving for drawing up the blind are wound is effected by one or more springs arranged in the said top piece, and the stopping of the blind in different positions is effected by means of a simple pawl arrangement. The spring or springs in the top piece may be tightened or slackened, as desired.

The invention is represented in the accompanying drawings, in which—

Figure 1 is a front elevation of a Venetian blind in its open position. Fig. 2 is an edge view of the same. Fig. 3 is an edge view showing the blind in its closed position. Fig. 4 is an edge view of the blind partly closed upward. Fig. 5 is a similar view partly closed downward. Fig. 6 is a plan. Fig. 7 is a side elevation of the blind in its open position. Fig. 8 is an edge view of the same. Fig. 9 is a plan of a part of the regulating-piece with the cover-piece and supporting-bracket removed. Fig. 10 is a plan with part of the cover-piece and the brackets in position. Fig. 11 is a section on the line $x\ y$ of Fig. 10. Fig. 12 is a section on the line $z\ u$ of Fig. 10. Fig. 13 is a front elevation of a supporting-bracket. Fig. 14 is a detail of the axis or shaft with the spring and its fastening-piece. Fig. 15 is a section on the line $x\ y$ of Fig. 14. Fig. 16 is a plan of the fastening-piece for the spring. Fig. 17 is a front elevation of the stopping-collar for the fastening-piece. Fig. 18 is a plan of one end of the top piece, and Fig. 19 is an end view of the same.

In the example shown on the drawings the improved Venetian blind consists of a top piece A and a bottom piece B, connected with each other by means of the tapes C, which are connected by double transverse tapes or pieces *c*, between which the laths D of the blind are laid, and the Venetian blind is lifted by lines or cords *e* and is drawn down by the cord and tassel F, fixed to the bottom piece. The top piece A, of wood or other material, is provided with a recess A′, in which the axis or shaft *b* rests in brackets *b′* and b^2, and the whole is covered by a cover-piece A^2.

At each end of the axle *b* is fixed a pulley E, on which the cords *e* are wound. The spring *d* for rotating the axle is arranged on the latter and is at one end fixed to the same and at the other end is secured to the fastening-piece *d′*, which may be adjusted either forward or backward on the axis or shaft in the recess A′, by which the spring, according to requirements, may be tightened more or less, the fastening-piece being fixed in the desired position by means of the collar G, inserted in the recesses d^2 in the fastening-piece when the said piece is moved opposite the corresponding recesses *a* in the top piece.

For fixing the blind in different positions the axle is provided at one end with a collar H, having one or more recesses *h*, with which a small pawl *i*, pivoted to the bracket b^2, engages, so as to fix the blind in any desired position.

For keeping the cord in the central position with respect to the blind I arrange below the pulleys E other small pulleys *k*, which are secured in any suitable manner to the top piece and between which the said cord passes. The said top piece is at the ends provided with end plates L, having pivots *l*, which fit into bearings in the brackets *l′*, secured to the window-frame.

By means of the regulating-line M and chain *m*, fixed to the the top piece, the laths of the blind can be turned into different positions, as indicated in Figs. 3, 4, and 5.

By fixing the chain on a pin in the window-frame or other place the blind is held in any required position.

The laths D D′ of the blind are laid in between double transverse tapes or pieces *c*, which are fixed to the longitudinal tapes in the usual manner.

When the transverse tapes are used, it is immaterial whether the blind is placed upward or downward in the window-frame.

The laths of the blind are either of linen cloth D or of strips of wood D′.

The bottom piece B is on the under side provided with a strengthening-rib *o* for the purpose of making the said bottom piece much stiffer and stronger, the cord F for drawing down the blind being fixed in the said bottom piece, which therefore has to withstand the whole pull of the cord thereon.

The top piece of the blind may, if desired, be made so that it cannot be turned.

What I claim is—

In a Venetian blind, the combination, with the slats, the slat-supporting tapes, and a recessed top piece pivoted to oscillate in the frame to which the blind is applied, of an axis journaled in said top piece, a fastening-piece adjustable on said axis, a spring, one end of which is secured to said axis and the other end of which is secured to the fastening-piece, means for securing said fastening-piece in its adjusted position, cords connected with said axis and with the slats, and cords connected with the recessed top plate for adjusting the position of the slats, substantially as described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 8th day of September, 1891.

CARL GUSTAV CHRISTENSEN.

Witnesses:
F. ECKERSBERG,
JACOB WYLLER.