(No Model.)

S. J. FISHER.

VENETIAN BLIND.

No. 451,924. Patented May 12, 1891.

Fig. 1.

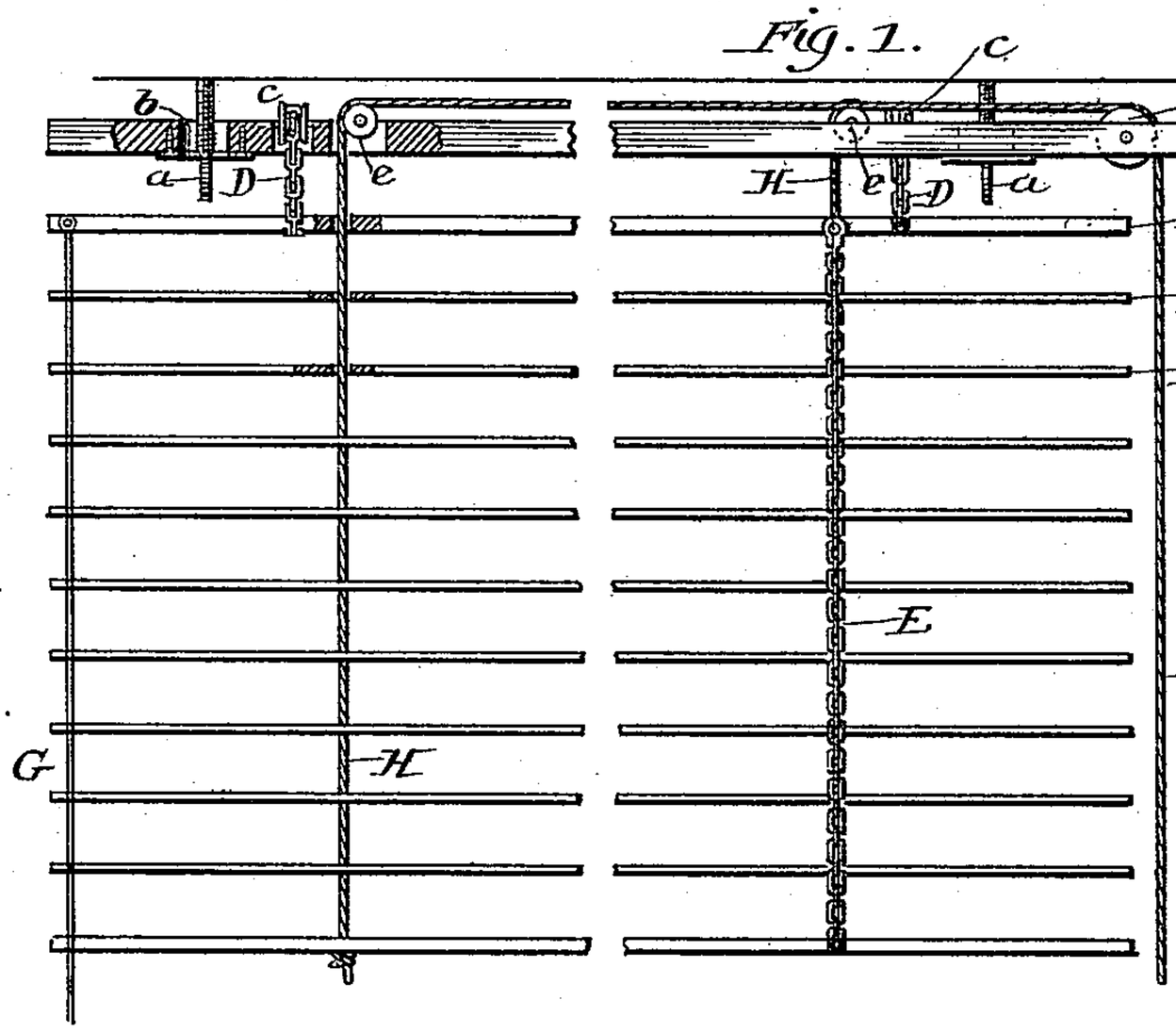


Fig. 7.

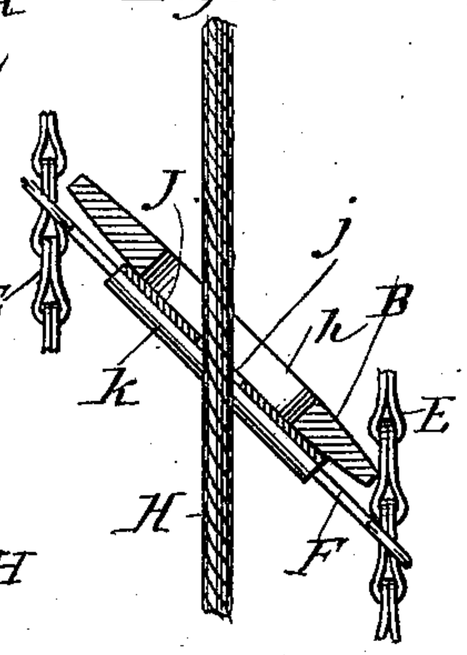


Fig. 2.

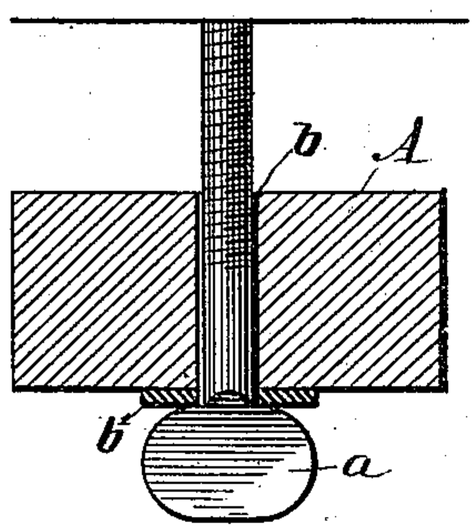


Fig. 3.

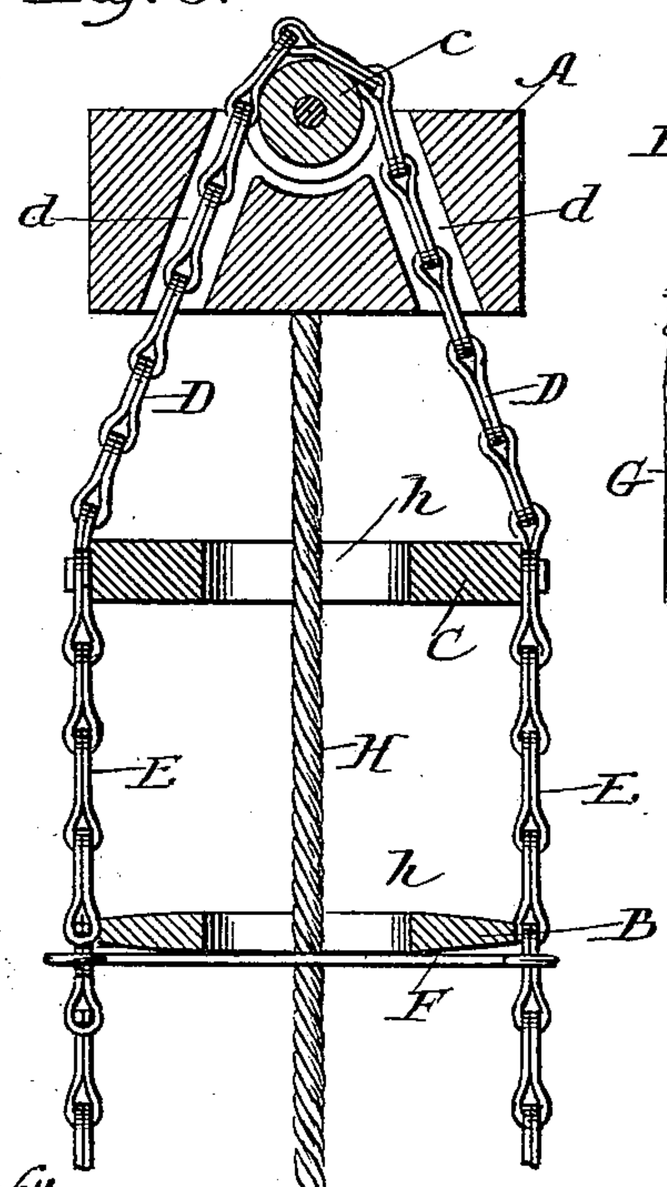


Fig. 5.

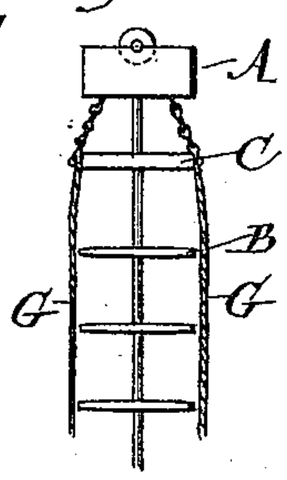


Fig. 4.

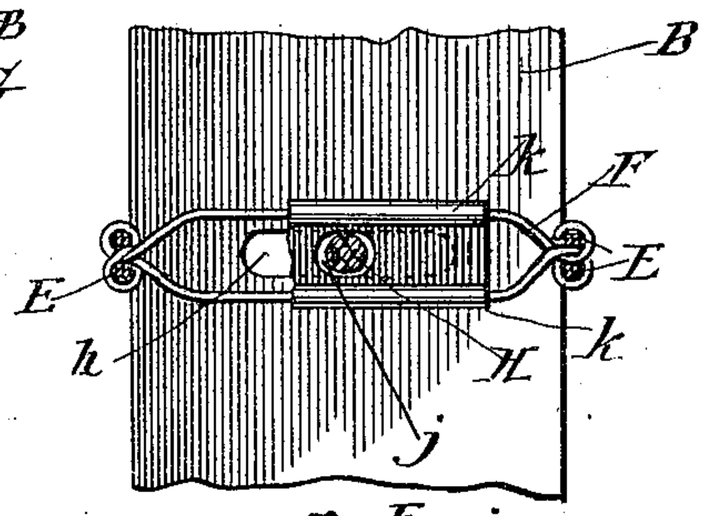


Fig. 8.

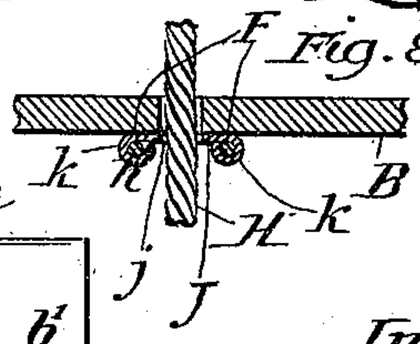
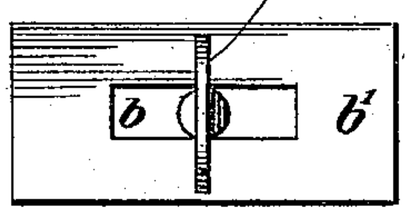


Fig. 6



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UNITED STATES PATENT OFFICE.

SAMUEL J. FISHER, OF CHICAGO, ILLINOIS.

VENETIAN BLIND.

SPECIFICATION forming part of Letters Patent No. 451,924, dated May 12, 1891.

Application filed June 24, 1890. Serial No. 356,591. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL J. FISHER, a subject of the Queen of Great Britain, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Venetian Blinds, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation, one side being broken out to reveal the parts otherwise concealed. Fig. 2 is an enlarged detail showing the manner of securing the blinds in position. Fig. 3 is an enlarged vertical cross-section. Fig. 4 is an enlarged detail showing an under side view of a slat and cross-wire. Fig. 5 is a reduced end elevation. Fig. 6 is a detail showing the slot in the support. Fig. 7 is a detail showing a slat of the blind turned at an angle. Fig. 8 is a detail, being a cross-section through a portion of the slat and guard.

This invention relates to Venetian blinds, and particularly to hangers for such blinds.

The object of this invention is to provide an improved device for securing the blind in place, improved means for supporting the slats of the blind, and an improved guard for the slats, which I accomplish as illustrated in the drawings and as hereinafter described.

That which I claim as new will be pointed out in the claims.

In the drawings, A represents the head or supporting piece. This piece A is provided with two or more elongated slots *b*, through which the heads of thumb-screws *a* may be passed. The head or supporting piece A is secured in position by passing the elongated slots *b* over the heads of the thumb-screws *a* and then turning the thumb-screws a quarter-turn, thereby rigidly securing the head or supporting piece A in position. The thumb-screws *a* may be screwed into any convenient part of the window. The head A is provided with slotted bearing-pieces *b'*.

B represents a number of slats, which compose the blind.

C represents a slat, from which the other slats B are suspended.

D D represent two chains or cords attached to the opposite sides of the slat C near its ends, as shown in Figs. 1 and 3.

E E represent chains for supporting the slats B. The chains E are arranged in pairs, one on each side of the slats, as shown in Fig. 3, and two pairs or more of chains E are used in each blind. Each pair of chains E is provided with a number of cross-wires F, which are secured to the links of the chains E, as best shown in Fig. 4. The chains E are chains consisting of links, to which the cross-wires F can be readily secured. Each set of cross-wires F consists of two parallel wires, which are connected near their ends and have their ends wrapped around the side bars of the chain-links, as best shown in Fig. 4.

G G are two cords, one connected to each side of the upper slat C, as best shown in Fig. 5.

H is a cord which passes down through openings *h* in the slats B and C and is secured at its ends to the lower slat, as best shown at the left in Fig. 1. The chain E is not shown at the left in Fig. 1, as it would conceal the cord H. The cord H passes over pulleys *e* and over a pulley *j* downward to within convenient reach.

J represents a guard for each slat B. Each guard consists of a piece of sheet metal, which is provided with a slightly-elongated hole *j*, through which the cord H passes, and its edges are turned over at *k* around the wires F. The upper slat C is supported from the support A by means of the chains D. The chains D run over pulleys *c*, so that the position of the upper slat C may be adjusted by means of the cords G—that is, the upper slat C may be turned at any angle by pulling upon one of the cords G, and it will remain in that position until again adjusted by pulling the other one of the cords G. The slats B lie flat upon the cross-wires F, which wires are secured to the links of the chain E. Whenever the upper slat C is tilted or adjusted, the chain E on one side will be raised and the chain E on the opposite side will be lowered, thereby tilting the cross-wires F and slats B. Whenever the slats B are tilted, they will be placed at such an angle that sunlight may pass through the elongated holes *h*. In order to prevent sunlight from passing through these holes *h* at such times, I have provided the guard J, as best shown in Figs. 4, 7, and 8. Whenever the slats B are tilted, the cord H must be free in the slot *h;* but the guard J

can slide with the cord H on the wires F, thereby permitting the slats to be readily tilted at an angle without interfering with the cord H and preventing the passage of sunlight. The slats B may be drawn up by means of the cords H in the usual manner.

The cross-wires F are made of any suitable wire and are secured to the links of the chains E in the proper position to support the slats B. By using wires F it is not necessary to have any special form of chains or connecting-pieces E and it is not necessary to join the cross-wires F with the chains E at the time when the chains are being made; but common chains may be used and the cross-wires F connected with the corresponding links at any time.

By the use of thumb-screws *a* and the head or supporting piece A, provided with elongated slots for the passage of the heads of the thumb-screws, the blind can be readily and quickly placed in position and as quickly and readily taken down.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a Venetian blind, the combination, with a number of slats B and side chains composed of links, of cross-wires F, said cross-wires F consisting of two wires connected near their ends and having their ends wrapped around the side bars of the chain links, substantially as specified.

2. In a Venetian blind, the combination, with tilting slats B, each having an elongated slot *h* and an elevating-cord H, passing through said slots, of guards J, each having a hole *j*, through which the cord H passes, and being arranged to cover a slot *h*, substantially as specified.

3. In a Venetian blind, the combination, with slats B, having slots *h*, cord H, and side chains E E, of wires F, attached to the chains E E, and guards J, having slots *j* and turned edges *k*, substantially as and for the purposes specified.

4. In a Venetian blind, the combination, with the head A, having slots *b*, and attaching thumb-screws *a*, passing through said slots *b*, of a slat C, slats B, chains D, attached to slat C, pulleys *e*, mounted in the head A and supporting said chains D, chains E, attached to slat C, wires F, attached to said chains E, cord H, and guards J, substantially as specified.

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