(No Model.)

F. A. SCHLUNS.

COILED SLIDING DOOR.

No. 514,966. Patented Feb. 20, 1894.

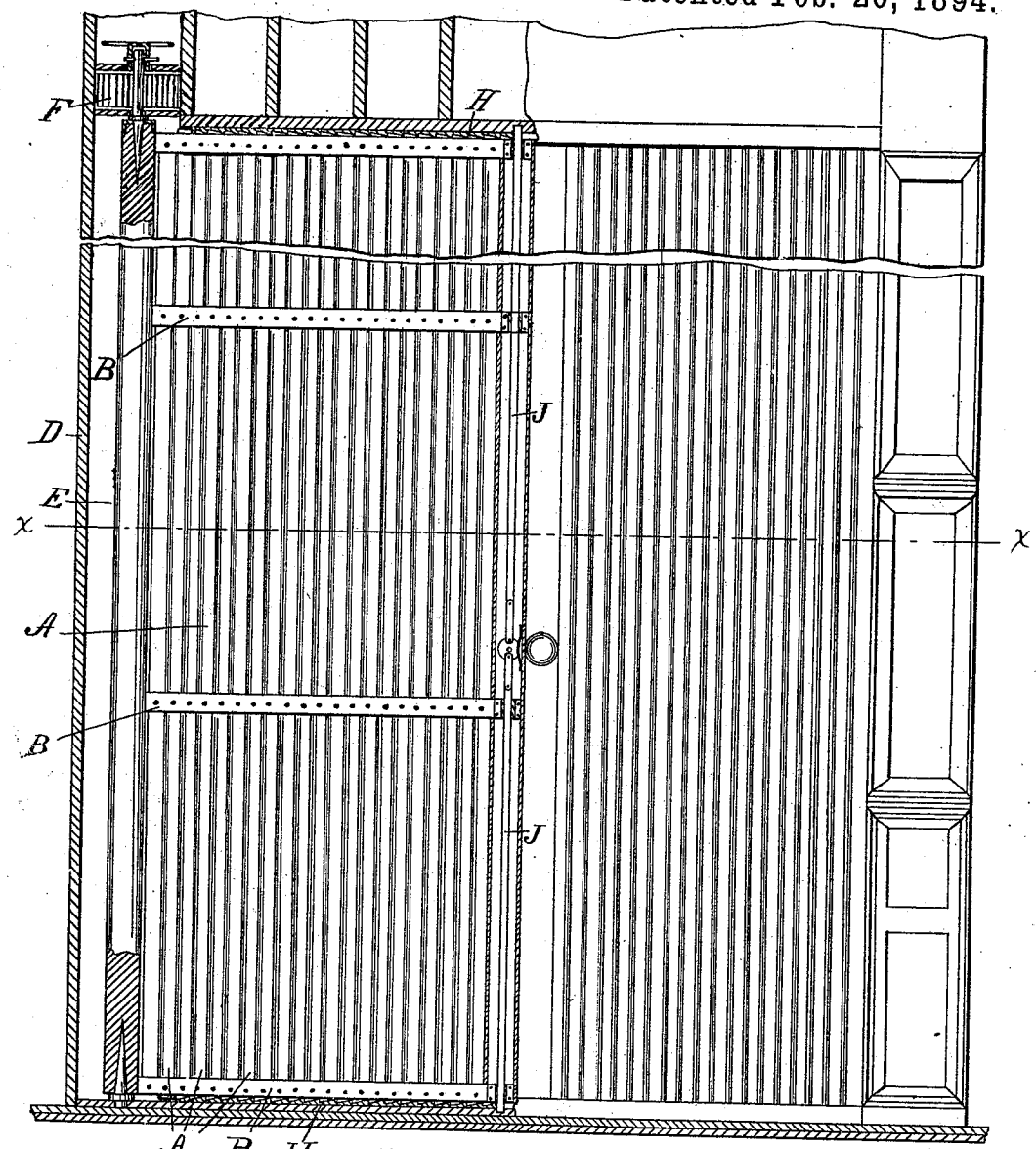


Fig. 1.



Fig. 4.

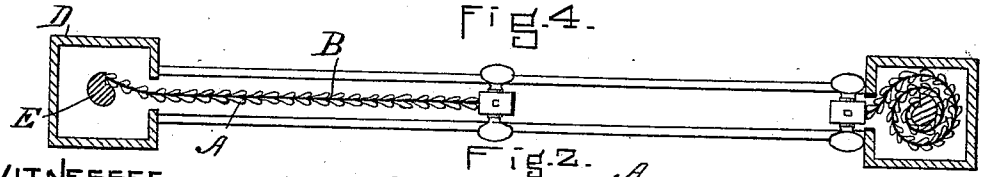


Fig. 2.

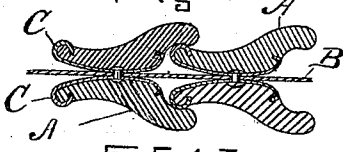


Fig. 3.

WITNESSES.

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FREDRICK AUGUST SCHLUNS, OF MILTON, MASSACHUSETTS.

COILED SLIDING DOOR.

SPECIFICATION forming part of Letters Patent No. 514,966, dated February 20, 1894.

Application filed October 21, 1893. Serial No. 488,768. (No model.)

To all whom it may concern:

Be it known that I, FREDRICK AUGUST SCHLUNS, of East Milton, in the county of Norfolk and State of Massachusetts, have invented certain new and useful Improvements in Coiled Sliding Doors, of which the following, taken in connection with the accompanying drawings, is a specification.

The object of my invention is to provide for public and private buildings, sliding doors adapted, when opened, to be coiled around a vertical spindle and inclosed within a hollow column.

My improved door is composed of a double series of vertical strips, preferably of wood, secured to the opposite sides of flexible sheets or bands, which may, with such strips, be wound around a spindle inclosed in a hollow vertical column, and connected to a coiled spring adapted to compactly coil such door when opened. Horizontal slides are provided to conceal the ends of the vertical strips. Such strips are preferably connected with the horizontal bands by narrow metal clips bent to surround the strips and riveted to the bands. Bolts counterbalancing each other extend upwardly and downwardly from a collar on the knob spindle and engage in sockets or with ratchet teeth formed in the sliders to hold the door closed or partly opened as desired.

In the drawings, Figure 1 is an elevation, half vertical section, of double doors embodying my invention. Fig 2 is a horizontal section on the line *x*—*x* of Fig. 1. Fig. 3 is an enlarged horizontal section through two pairs of the vertical strips and the flexible sheet or band. Fig. 4 is a plan of the ratchet and sliders.

A A represent the vertical strips and B B the flexible bands extending transversely between the two series of strips and forming a means of connecting them. These bands may constitute one continuous fabric or be made of such width as is desired and of any suitable flexible material. These strips may be riveted directly to the bands or be otherwise secured. I have devised a desirable form of uniting them, illustrated in Fig. 3, in which metallic clips C are riveted to the band B. The ends of the clips bend outwardly from the band and are turned toward each other, forming grooved pockets to receive the strips A inserted endwise. If the strips are placed in pairs opposite to each other they will be so shaped as to over-lap edgewise, as in Fig. 3. The clips hold the strips firmly and their riveting to each transverse band is concealed.

D represents a hollow column and E a rotatable shaft to which the ends of the bands B are secured and around which the flexible doors are coiled. See Fig. 2. The coiling is preferably effected by a strong spring F, Fig. 1, which is put under tension when the door is closed or drawn out of the column, the tendency of such spring being to open the door and coil it around its spindle, as seen on the right in Fig. 2.

I provide the door casing at top and bottom, with grooved ways G, which I term sliders, which receive and conceal the ends of the vertical strips A, which (at bottom) rest upon said ways. I also form a ratchet H or a series of sockets along the central line of these grooved ways concealed when the door is closed to engage with the bolts J which extend upwardly and downwardly from a collar on the knob spindle to hold the door closed or partly closed as desired. A suitable spring may be employed to keep the bolts normally in their locked positions.

I claim as my invention—

Coiled doors consisting of a double series of vertical strips overlapping each other and secured on opposite sides of transverse connecting bands, in combination with metallic clips C, fixed centrally to said bands and curved outwardly at each end to receive and hold such vertical strips, substantially as set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 2d day of March, A. D. 1893.

FREDRICK AUGUST SCHLUNS.

Witnesses:
A. H. SPENCER,
THOS. J. KENNY.